

ASPECTS OF ADOLESCENT
RELIGIOSITY AND RELATED
WORLD VIEWS

A thesis
submitted in partial fulfilment
of the requirements for the Degree
of
Master of Arts in Psychology
in the
University of Canterbury
by
C.M.Parsons

University of Canterbury

1987

ABSTRACT

This study involved 568 adolescents in their first, second, and third years of high school. A fixed-format questionnaire obtained information about religious beliefs and practices. Questions were also asked concerning future events, politics, nuclear weapons, and the influence of people and institutions. The influences of sex, age, religious schooling, and church affiliation upon the subjects' answers were analysed using descriptive and inferential statistics.

The results of the study confirmed the findings of previous research that girls are more likely to be religious than boys, (and that this may be the result of their higher levels of existential concern and anxiety) that younger adolescents are more likely to be religious than those who are older, that Catholic schooling has a minimal effect compared to other influences, and that being affiliated to a church is associated with greater religiosity - especially belonging to the Catholic Church. Previous research was also supported and extended by the findings of greater optimism and conservatism among Catholic teenagers, as well as the high levels of militarism among Catholic school boys.

Results were also analysed by the adolescents' perceptions of their own religiosity. This was done to include a broad range of adolescents instead of concentrating on the religious minority. Strong relationships were found to exist between religious self-rating and religious be-

haviour and belief. Also, the religious were more conservative and conforming, the anti-religious more radical and independent.

This study corroborates previous research in the field. It also touches on some new ground in New Zealand research concerning the effect of religions on adolescents' views regarding politics, the future, and nuclear weapons.

CONTENTS

CHAPTER	PAGE
ABSTRACT	1
I. INTRODUCTION.....	3
1.1 General Introduction.....	3
1.2 Literature review.....	4
1.3 Nature and scope of the investigation....	15
II. METHOD.....	16
1.1 Experimental design.....	16
1.2 Sampling procedure.....	17
1.3 Construction of the questionnaire.....	19
2.1 Data collection.....	22
2.2 Context of questionnaire administration..	22
2.3 Data analysis.....	23
III. RESULTS.....	26
1.1 Sex differences.....	29
1.2 Age differences.....	32
1.3 State school-Catholic school differences	34
1.4 Self-rated religiosity.....	38
1.5 Church affiliational differences.....	43
2.1 Analyses of variance.....	47
3.1 Sex differences.....	50
3.2 Age differences.....	53
3.3 State school-Catholic school differences	56
3.4 Self rated religiosity.....	60
3.5 Church affiliational differences.....	66

CONTENTS (CONTINUED)

CHAPTER	PAGE
IV. DISCUSSION.....	70
1.1 Sex differences.....	70
1.2 Age differences.....	72
1.3 State school-Catholic school and Church affiliational differences....	75
1.4 Religious self rating differences.....	79
V. CONCLUSIONS.....	85
1.1 Concerning gender.....	85
1.2 Concerning age.....	85
1.3 Concerning schooling.....	86
1.4 Concerning religious self rating.....	86
1.5 Concerning church affiliation.....	87
ACKNOWLEDGEMENTS.....	88
REFERENCES.....	9
APPENDICES.....	101

LIST OF TABLES

TABLE	PAGE
1. Total number of subjects by sex, form, and schooltype	13.
2. Frequencies of subjects' affiliations	37.

CHAPTER I

INTRODUCTION

1.1 GENERAL INTRODUCTION

The central interests of New Zealanders are said to be "sport, politics, or plain hedonism" (Mol, 1984; P.93), fitting their description as the "most areligious and agnostic country on earth" (Sharpe, 1982; P.5). Many researchers have concluded from such observations that research on religion in such seemingly barren territory is a waste of time and resources especially in the area of teenage development. An extensive compilation of educational research by Pickens (1975; 1976a: 1976b) as well as the Union Theses list of work submitted over the last 50 years (Union Theses list, 1975) indicate that very little research has investigated adolescence and religion.

This picture of extreme religious apathy is shown to be more apparent than factual by the observation of Ritchie and Ritchie (1984; P.135) that there is "an increasing interchange between youth culture and conventional religion through the religious cult revivalism of the 1970's". They also discuss the growing numbers of young people attracted to eastern religions and cults. Apart from those involved in such religious movements, there are also many more teenagers who remain privately or nominally religious (Stuart, 1982; Mol, 1984).

The few New Zealand studies of teenagers and religion

have concentrated on the religious minority, a common fault in the psychology of religion (Himmelfarb, 1979), and very little is known about the rest. Are there, for instance, differing orientations to religion among non-religious teenagers? And if there are, how do they differ from each other, and from the religious, in what they believe and how they respond to the world around them? This study aimed to examine these issues. Another aim was to extend the findings of the significant but comparatively small groups of studies on religious teenagers in New Zealand.

1.2 LITERATURE REVIEW

New Zealand Research

Church Membership

Overall trends include a decline in membership of teenagers in the 'mainline' churches (Anglican, Catholic, Methodist, Presbyterian) with a resulting increase in the numbers of the nominally religious and completely irreligious, and an increased participation among some teenagers in minority religious groups (Woolford and Law, 1980; Hill, 1982; Stuart, 1982; Mol, 1984). Some express fears that some teenagers join these minority groups as a form of escape (Donnelly, 1979), while others describe it as part of living in an increasingly pluralistic society (Stuart, 1982; Ritchie and Ritchie, 1984). While formal church involvement is displaying an overall decline, church based youth groups and organisations have been shown to be capable of attracting a high level of interest among adolescents, and are influential in preventing them from drift-

ing away from the church as they get older, (Anderson, 1970; Patterson, 1969; Garwood, 1974; Seager, 1975).

Sex Differences

The studies quoted above also found that girls were more likely than boys to attend church and church-related youth groups. Girls were also more likely than boys to attend church youth groups for religious rather than social reasons (Anderson, 1970), to have positive attitudes to religion (Button, 1971), and to say they had 'transcending experiences' (Nalder, 1974). The greater involvement in religion for religious reasons among girls found by Anderson (1970) was corroborated by the findings of Barlow (1963) and Webster (1976) that boys were more likely than girls to see religious beliefs as part of a respectable lifestyle and associated with occupational and social mobility.

Age Differences

An overall decline in involvement in church and youth groups with increasing age was also found, especially among the boys. Positive attitudes to religion also displayed a decline with increasing age, except among those who were regular church attenders (Wildbore, 1967). Wildbore (1967) and Garwood (1974) report that those who were well educated and had a high I.Q. were also less likely to stop attending church in their teens.

Church Affiliational Differences

Catholic teenagers were more likely than those associated with Protestant churches to believe in Christian

doctrines, to attend church, and to pray; but although apparently more religious, they are also more likely than Protestants to say their religion has too many rules and regulations (Darwick, 1968). Darwick's study compares Catholic school pupils to State school pupils as Catholic and Protestant, even though not all of the State school pupils were affiliated to a church thus exaggerating Catholic-Protestant differences (although some difference would still have remained when church affiliation was controlled for).

Religious Schooling

Loft (1974) argues that Catholic schools are essential in maintaining the religious practices and beliefs of young Catholics while David (1964) minimises the role of schools in religious training in comparison to the influence of the home. Aitkins (1984) proposes that Catholic schools actually exert a negative influence; and that Catholics attending State schools are more religious than those from Catholic schools. Because of the sampling procedure Aitkins used, the State school Catholics in her study were more likely to come from religious homes than the Catholic school Catholics, explaining their greater religiosity. Other researchers in New Zealand have ignored the influence of parochial schooling completely (Mead, 1969). Others have found there was no difference in the religiosity of pupils attending a school having religious education classes compared to pupils attending a State school with no religious education (Wildbore, 1967). Another investigation found the forced chapel attendance at a religious boarding school to be more unpopular than

restrictive rules of hostel food (Codd and Burridge, 1976). The denominational backgrounds of these schools were not identified by the authors, however, so they cannot add any further comment to the findings of the other studies.

Although New Zealand research lacks consistent results in assessing the influence of parochial schooling it does show that many young Catholics have very positive attitudes to the staff and schools of the Catholic education system (Dowling, 1972). Also, religious education in Catholic schools has been reported as stimulating a lot of interest among pupils when made more interesting and accessible (Donnelly, 1963). Out of the four mainline denominations it was the Catholics who displayed the most influence of religious teaching in their thoughts about God (Cummack, 1945).

Religion and World Views

Sharpe (1982) describes the churches as being a conservative influence on their adherents and Hill (1976) reports that adolescents entering Teachers College are more likely to be conservative if they have a church background, especially if they are Catholics. Shallcrass and Gavriel (1976), however, found only a minority of their religious subjects displayed high levels of conservatism, and Gray and Valentine (1984) found that among pupils attending religious schools only the Catholic school boys were likely to justify conventional warfare for aggressive reasons.

Apart from possibly greater levels of conservatism, religious teenagers have also been shown to be more likely

to participate in prosocial acts (such as giving money to charity or trying to get others involved in an altruistic cause) as well as to have more altruistic attitudes (Shallcrass and Gavriel, 1976; Small, 1976). Religious involvement also seems to influence attitudes to the future. Shallcrass and Gavriel (1976) found teenagers who believed religious doctrines to be the most optimistic about the future, even about the possibility of conventional or nuclear war. Gray and Valentine (1984) and McSweeney (1984), report greater pessimism among girls about the future and the threat of a nuclear conflict. McCulloch (1984) describes many New Zealand teenagers as suffering from "psychological fallout" from anxiety about nuclear weapons. None of these studies investigated the role of religion in this area.

Research Overseas

Church Membership

Tamney and Johnson (1985) assert that secularisation in the west has made religion insignificant to modern people. Furthermore, Bikel (1969) and an editorial in the publication "America" (1969) describe widespread disillusionment and even hostility towards religion among adolescents. Others completely contradict such assertions when they argue that "movements of religious revival are legion" among contemporary youth (Archer, 1975; P.179) and that these have "had a more pervasive effect on American youth since the end of World War II than have had more widely reported episodes of political radicalism" (Kett, 1977; P.62). Furthermore, it appears that thousands

of teenagers throughout the west are joining religious cults and undergoing radical changes in thinking and life-style in doing so (Doress and Porter, 1978; Levine, 1984).

These differing descriptions of teenage religious involvement are not irreconcilable. Over time there has been a decline in religiosity among the majority of the population (e.g. Roof and Hadaway, 1977; Hill, 1982). This decline is most noticeable among adolescents in mainstream churches (Francis, 1978; 1979). Contemporary to this there has been an increase in participation in alternative religious groups among a minority of adolescents. (Richardson et al, 1978; Bruce, 1983; Gruner, 1984; Perkins, 1985).

Sex Differences

An extensive group of studies has found girls to be more religious than boys: girls are more likely than boys to attend church, sunday school, and church-based youth groups, to believe religious doctrines, to pray, read the Bible, have positive attitudes to religious education and to religion in general, and to be less sceptical about religion (Hyde, 1965; Johnson, 1966; Poval, 1971; Greer, 1972; 1981; Mueller and Johnson, 1975; Francis, 1977; 1979; Homan and Young, 1982). This sex difference in religiosity has been found in different cultures (Weigert and Thomas, 1970; , 1972; 1974; Thomas and Weigert, 1971) and in different times (Hall, 1905; Leuba, 1916).

Age Differences

Religious practice and belief have been found to

decline with increasing age throughout the teenage years. Researchers have found girls to display this decline less than boys. Some studies have also found Catholic teenagers to display less of a decline with increasing age than Protestant teenagers (Hyde, 1965; Francis, 1978; Greer, 1981). Francis (1979) reviewed various studies in this area and found that many researchers report a consistent decline in religiosity while others report a tendency for religiosity to increase again in the later teenage and young adult years.

Church Affiliational Differences

Teenagers raised in Catholic families were more likely than those brought up in Protestant homes to have positive attitudes to religion, churches, and to religious people (Greer, 1972; Mueller and Johnson, 1975; Francis, 1979; Turner and Davies, 1982; Francis, 1986). Catholic teenagers are also more likely to believe in Christian doctrines (Hynson, 1976; Greer, 1981) and to be regular church attenders (Francis, 1979; Greer, 1981). Being born into a Catholic family has more of an effect on people's religious positions as adults than being born into a Protestant family does. According to Australian surveys children born into Catholic families are twice as likely to grow up to be regular church attenders than those born into Anglican families (Gallup Poll, 1969; the Australian, 1970). The greater 'retaining power' of the Catholic Church over its adolescent members has even been demonstrated by Salisbury (1970) as being able to erode the

central influence of the mother (Holm, 1985) in religious socialisation, as children of mixed Catholic-Protestant marriages show a tendency to join the Catholic Church even when the mother is Protestant. Salisbury (1970) theorises that corporate behavioural and ideological mechanisms (weekly mass, confession, Catholic schooling etc.) act to integrate Catholics into the church, and that Durkheim's (1951) concepts of integration and constraint provide the most fruitful understanding of the Catholic system.

Religious Schooling

Religious education and its contribution to adolescent religiosity is a controversial subject with many pupils, parents, teachers, and even clergy, from a variety of religious backgrounds expressing the opinion that parochial schools are ineffective and redundant (Greer, 1970; Cohen, 1974; Robinson, 1976).

The criticisms of the religious schools of some churches are supported by research results. Jewish schools have been shown to have a positive effect only on the religiosity of adolescents from highly devout homes (Cohen, 1974; Himmelfarb, 1979) and Anglican schools have been shown to exert a negative influence on the religiosity of their pupils (Francis, 1979; Francis 1986). The investigations of Francis (1979; 1986) provide a more favourable evaluation of Catholic schools, proving them to have a positive effect on teenagers' attitudes to religion. Francis's studies found that Catholic school pupils are more positive in their attitudes to religion than Anglican

and State school pupils even when the effects of age, sex, parental religiosity, religious behaviour, and social class had all been controlled for. It is unclear, however, whether these results justify the belief of Flynn (1984) that Catholic schooling can maintain the religious belief and practice of teenagers from nominally Catholic homes. The home is the primary influence on children's religiosity (Cohen, 1974; Holm, 1985) and sometimes differences in teenage religious practice attributed to schooling are actually due to its influence (Homan and Youngman, 1982).

Religion and World Views

Many people have been shown to describe a variety of casual agents (luck, heredity, environment, etc.) as acting together as very strong influences on their lives (Glock and Stark, 1976), and often as using a mixture of naturalistic and supernaturalistic meaning and belief systems to explain events in the world around them (Spilka et al, 1983). Those displaying high levels of religious belief and practice (Ritzema, 1974) as well as those saying they feel near to God (Gorsuch and Smith, 1983) are the most likely to see God as an influence in their lives and in personal, national, and international events.

Glock and Stark (1976) found people who used supernatural causes to 'structure reality' were among the most likely to be politically conservative, although many were also middle of the road or reformist in their political positions. Those most likely to be politically liberal or radical were people who applied environmental or conspiratorial explanations to life events. People who

explained things in terms of their own choices and abilities were more likely than other subjects to be conservative or reactionary in their political views.

Glock and Piazzas' findings of greater conservatism among religious subjects are part of an extensive body of results linking religion, especially conservative religion (Balswick et al, 1975), with conservative political views. Although research findings in this area extend back through three decades (e.g. Allport, 1954; Glock, 1959; Hadden, 1963; Feagin, 1964) there is still confusion and disagreement about the relationship between people's religious positions and their political positions (Hoge and Zulueta, 1985; Ostling, 1985). This confusion has in part been caused by the lack of philosophical and theological input, resulting in inadequate conceptualisations of theological conservatism (Black, 1964). Furnham (1985) argues there are also methodological problems with tests of conservatism and that many lack external validity through being culturally and temporally bound. Furthermore, researchers investigating this question have sometimes been charged with bias against conservative Christians, or even against Christianity as a whole (Waternik, 1977). Despite these problems it is clear some sort of relationship exists and is such that it can be clarified by further research.

An issue relevant to the discussion of research into politics and religion is that of multidimensionality. Early studies often found little relationship between

religious and political beliefs. Glock (1954) identified inadequate conceptualisations of religion as unidimensional entities (for instance, church attendance or belief used as indicators of religiosity by themselves) as the cause of such results. When multidimensional models of religiosity incorporating behaviours, beliefs, and attitudes, were introduced stronger relationships between religious and secular views began to emerge. Multidimensional conceptualisations of religion have flourished in the psychology of religion producing valuable insights into human religious behaviour (Himmelfarb, 1975; De Jong et al, 1976).

A highly pertinent area of adolescents' attitudes that has surprisingly not been researched is that of nuclear war. Churches (1984), Salholz and Taylor (1982), and Yudkin (1984) describe widespread despair among adolescents and children about the possibility of nuclear war. The consistent finding of this research is that boys are more likely than girls to be optimistic about the future, and about nuclear war. Surprisingly, the role played by religion in adolescents' evaluations of such a threat has been little researched. This is despite the fact that churches have been analysed as capable of exerting higher levels of social constraint on their members (e.g. Salisbury's (1970) discussion of the Catholic Church) and that these greater levels of constraint have been related by Durkheim (1951) to greater protection from worry and distress. Does religion then, shield its adherents from fear of nuclear war?

1.3 NATURE AND SCOPE OF THIS INVESTIGATION

This study aimed at examining the influence of sex, age, religious school, and church affiliation, on the religious attitudes, beliefs, and practices of young New Zealand teenagers in the Christchurch area. This would allow both comparison and contrast with previous New Zealand and overseas research (especially with New Zealand research, which needs to be extended as so little of it has been done). A further aim was to discover more about the different orientations to religion among teenagers, and how these effect their responses to various facets of religion. The other important aim of this research was to investigate the effects of sex, age, schooling, church affiliation, and religious orientation on adolescent perceptions of the world. This included their optimism or pessimism about the future (including the possibility of nuclear conflict), their political beliefs, and who or what they saw as being the most important influences in their lives.

This study utilises the multidimensional model of religion proposed by Smart (1975) as a basis of investigating religious behaviour. The use of Smart's dimensions in a psychological study enables the researcher to benefit from the most recent theological enquiries and produce material relevant for all researchers in this area (Kay and Francis, 1985). Also, as has already been mentioned, using a multidimensional approach provides the best means of exploring this complex and heterogeneous area of human behaviour (Ringgren and Ström, 1967; De Jong et al, 1976).

CHAPTER II

METHOD

The first half of this chapter explains the experimental design, the sampling procedure, and the construction of the questionnaire. The second half goes on to outline the data collection process, the context of the questionnaire administration, and data analysis.

1.1 EXPERIMENTAL DESIGN

This investigation of adolescents and religion was heavily influenced by the methodology of Greer (1970; 1981; 1984). In studying Northern Irish youth he concentrated on the influences of age, sex, and church affiliation upon religious beliefs and behaviour. His design provides a series of age by sex by church affiliation cells and allows the control of these variables in intergroup comparisons.

Three main similarities exist between this study and Greer's. The basic statistical cells are alike, being cross sections of age, sex, and church affiliation. Inter-denominational comparisons are similar, with all Protestants being classed as one group for comparisons with the Catholic subjects. Lastly, the sampling procedure is the same, with Catholic subjects taken from Catholic schools and Protestant subjects from State schools.

Some dissimilarities, however, also exist. This study concentrates on 13, 14, 15 and 16 year olds while

Greer samples primary and intermediate age populations as well (Greer, 1981). New Zealand schools display more of a mixing of Catholic and Protestant while those in Northern Ireland are completely sectarian and separated (Mol, 1967; Greer, 1981; 1984; Aitkins, 1984; Hill, 1982). Also, there are many teachers within the Catholic schooling system in New Zealand who are not Catholics, which modifies its influence as a sectarian agency of the Catholic Church. Another difference is that while Greer only compares Protestants and Catholics, a non-affiliated category was included in intergroup comparisons for this study. This was because the unaffiliated, while a small minority in Northern Ireland, form a significant proportion of the New Zealand population (Brown, 1982; New Zealand Census, 1984). Lastly, the underlying model of religiosity being investigated by Greer is different from the one used in this study. Greer (1981) uses Francis's 'Religious Attitude Scale' as well as asking about church attendance, belief in God, and the importance of religion in subjects' lives. This means most of his data is on attitudes towards religion. In contrast, this study uses the multidimensional model of religion proposed by Smart (1975) which centres on belief, behaviour and experience and does not investigate attitudes to religion to any great extent.

1.2 SAMPLING PROCEDURE

The principals of five State schools and four Catholic schools were contacted by telephone to arrange an appointment to discuss the administration of the questionnaire in their schools. One of the State school principals

and one of the Catholic school principals declined to be involved. The principals who agreed to provide access to their pupils were requested to provide randomly selected classes from each of the third, fourth, and fifth forms to do the questionnaire in class time. Due to their school certificate timetable, many State school fifth formers were unavailable. Extra State school subjects were obtained from two further State schools and from a holiday camp.

It was aimed to have at least 50 subjects in each statistical cell producing a total of 600 subjects for the twelve different cells. Table 1. indicates that this target number was achieved for Catholic school subjects but not those from State schools.

Table 1. Total Number of Subjects by Sex, Form, and Schooltype.

	Third Form		Fourth Form		Fifth Form		
	Female	Male	Female	Male	Female	Male	
Catholic School	81	73	58	62	69	64	407
State School	81	52	59	60	40	30	322
Totals	162	125	117	122	109	94	729

Five subjects from the State school sample and six subjects from the Catholic school sample failed to state their sex. These questionnaires were excluded from being counted in Table 1. and from the data analysis. 50 questionnaires were randomly selected from each form by sex by schooltype group (except for the State school fifth formers) producing a total of 568 - 3.5% of the 16,047 third,

fourth, and fifth formers living in the Christchurch metropolitan area in 1985 (see Appendix 1).

1.3 CONSTRUCTION OF THE QUESTIONNAIRE

The questionnaire was developed in three stages. The first involved collecting a variety of potential questionnaire items. The second stage was the piloting of a preliminary questionnaire with a larger group of subjects. The third stage was the second piloting of a revised questionnaire with a larger development sample as well as a review of this preliminary questionnaire by a Social Studies teacher. Material gained from these sources was then used to produce the final questionnaire.

First Stage

Items for the questionnaire were taken from questionnaires published in books, journals, research reports, and theses. Items for the religiosity sections (numbers five to ten) were indexed into three lists: (a) attitudes to religion, (b) religious behaviour, (c) religious beliefs. Approximately 100 items were collected for each list. Fewer items were collected for the sections dealing with more secular attitudes and beliefs (sections one to four): many of these items were taken from two or three studies that were relevant to the particular topic being investigated. Most of the future orientation items came from a Heylen Research project done amongst young people and an E.E.C. study of the ultimate values of young adults. Conservatism items came mainly from the studies by Jamieson (1977), Furnham (1984), and Sidaneus (1984). The items

in the nuclear war section were mostly taken from other questionnaires although those specifically concerned with religion were created especially for this study. The attribution section was based on a study by Glock and Piazza (1978).

Five main principles guided the selection of items for the religiosity sections:

- (1) wide usage - indicating its theoretical and empirical importance.
- (2) relevance to the sample. Complex questions about such topic as human nature and involvement in church administration abounded in the literature.
- (3) a positive and significant relationship to other indices of religiosity.
- (4) Items had to be presented in a way which gave valid response choices to all shades of religious opinion (from the very religious to the apathetic and antagonistic to religion).
- (5) to provide (where possible) response choices applicable to adherents of other religions besides Christianity (e.g. the question on church attendance also included "mosque, synagogue or any other place of worship").

These principles (especially numbers four and five) find their greatest expression in the Symbolic Ritual Section. The items for this section were constructed specif-

ically for this study because Symbolic Rituals have not been studied as extensively as other expressions of religiosity. The sources of the items included books, discussions with Religious Studies lecturers and with adherents of major religions. Common themes were identified in ritual practices of Buddhism, Christianity, Hinduism, Islam, and Judaism, and were then developed into questionnaire item (see Appendix 2 for more information).

Second Stage

A preliminary questionnaire was constructed using the collected items. It was then administered to a group of five people, including three high school pupils. Their comments and suggestions were then used to revise it.

Third Stage

This revised version of the questionnaire was then administered to 24 teenagers. Twelve were from State schools and twelve were from Catholic schools. In both groups there were two boys and two girls from each of the third, fourth, and fifth forms. Their ideas and comments about the items were used to revise the questionnaire a second time. Another source of revisionary material was the Head of a Social Studies department at a State secondary school (see Appendix 3 for the preliminary questionnaire and Appendix 4 for the final questionnaire). Two of the four schools required permission forms for parents (see Appendix 5). The final questionnaire was produced using material from the piloting studies.

2.1 DATA COLLECTION

The questionnaire was (with a few exceptions) administered during class time. Two of the schools required permission forms (see Appendix 7). None of the subjects took longer than the 50 - 55 minutes of the class period to finish. Questions about items concerned the future orientation and conservatism items. Older subjects tended to ask less questions than younger subjects. There was little difference between the sexes or between different schools in amount of questions or type of questions asked. Behaviour during questionnaire administration was usually good with only a few subjects displaying behaviour problems. The questionnaires of these subjects were excluded from the final data analysis.

2.2 CONTEXT OF QUESTIONNAIRE ADMINISTRATION

The media today in general, and TV in particular ... are incomparably the greatest influence in our society today, exerted at all social, economic, and cultural levels

- Muggeridge (1973)

Many international and national events relevant to religion, politics, and nuclear weapons, occurred during the year of the questionnaire administration. It is possible that the presentation of these events - especially on television - had some effect on the subjects' beliefs and attitudes. Religion received a lot of media attention in 1985 because of its use by some opponents of the much debated Homosexual Law Reform Amendment Bill. International events during that year were very relevant to the future

orientation, conservatism, and nuclear weapons sections. These included the 'ANZUS row', deployment of 'new generation' nuclear weapons in Europe and the Pacific (with the accompanying protests), the sinking of the Rainbow Warrior, the famine in Ethiopia and Sudan, and the increase of cases of AIDS in western countries. This last topic best demonstrates what may be the effects of extensive media coverage on the adolescent: many of the subjects said they would have answered the questions on health and disease in the future orientation section of the questionnaire optimistically if not for the spread of AIDS. Besides discussing these issues with their families and peers, many of the subjects may have also talked about them during Social Studies or Religious Education periods.

2.3 DATA ANALYSIS

The 735 questionnaires were put into their twelve (sex by form by schooltype) categories (see Table 1). 50 questionnaires were then randomly selected from each category. Each questionnaire was checked and was replaced by another random selection if it contained missing data or displayed unco-operative or facetious responses. This produced a total of 568 with 50 in each cell (except for the fifth form boys and girls from State schools who numbered 29 and 39 respectively). The questionnaire responses were then coded and entered into a raw data file by staff at the University Computer Centre. The coding of each questionnaire was checked against the printout of the raw data file to identify any errors in its entry into the computer.

Computing and Statistics

The Statistical Package for Social Scientists (SPSS) was used. Programmes were run on a Burroughs 2000 computer. Editing and programming work employed the CHEF editing system and the CANDE command language.

The S.P.S.S. subprogrammes used were FREQUENCIES, CROSSTABS, T-TEST, and ANOVA. Chi squared was used to test the statistical significance of the effects of the independent variables. For age and church affiliational results T-tests were also used as they were able to assess specific pair-wise differences (e.g. between 13 and 16 year olds or between Anglicans and Catholics). T-tests were not to compare for self-rated religiosity groups as differences between these had already been shown to be highly significant.

Cramer's V was used as a measure of association between nominal variables such as between sex and optimism-pessimism. The Lambda statistic (also used with nominal measures) was used to assess proportional increase in ability to predict the value of dependent variables once the value of the independent variable is known. It provides a measure of the percentage increase in ability to predict subjects' beliefs about Heaven knowing they are a boy. Tau C was used as a measure of association between ordinal level variables such as self-rated religiosity and attributional ratings. The Gamma statistic was used to predict dependent variable values from independent variable values (with ordinal level data), similar to the information provided by Lambda. Somer's D was also used as a measure

of association between ordinal level variables. The eta statistic was used for crosstabulations of nominal independent variables and interval dependent variables, (e.g. association between schooling and regularity of church attendance). Two way analyses of variance were calculated with some items in the religiosity section using sex, age, schooling, religious self-rating, and church affiliation as independent variables (see Appendix 7 for examples of other statistical methods used in psychology of religion).

CHAPTER III

RESULTS

Part one of this chapter is the results of the religiosity sections. Part two presents two-way analyses of variance on religiosity items. Part three is the results of the non-religious sections. Brief summaries of the trends in subjects' results are presented below.

Sex Differences

Girls were more likely to be religious than boys. They were also more likely to be negative about the future, to be more unsure about some political issues, to be more opposed to the military and to nuclear weapons, and to attribute less importance to their own choices and abilities as life influences.

Age Differences

Older subjects were less likely to be religious, although this trend was often not statistically significant. Older subjects were also more negative about the future, more definite in their attitudes to political issues, and more concerned about nuclear war. Furthermore, older subjects perceived themselves to be more independent.

Catholic School - State School Differences

Catholic school subjects were more likely to be religious than State school subjects. They were also more likely to be optimistic about the future, conservative about many political issues, and to view God, their

family, school, and their own choices and abilities as being important influences over their lives. They also displayed the largest sex differences in attitudes to the military and to nuclear weapons, with Catholic school boys favouring these items and Catholic school girls against them. These differences were often highly statistically significant but were largely dependent on the effects of religious self-rating and church affiliation.

Self-Rated Religiosity Differences

There was a high correspondence between the seven religious self-ratings (1. very religious, 2. religious, 3. sometimes religious, 4. unsure about religion, 5. indifferent to religion, 6. critical of religion, 7. antagonistic to religion) and religious attitudes, behaviours and beliefs. Those saying they were unsure about, indifferent to, or anti-religion were highly unlikely to be religious in any way. Those describing themselves as either very religious, religious, or sometimes religious, were highly likely to exhibit religious behaviours, beliefs, and attitudes. Those who rated themselves as religious were also more likely to be optimistic about the future, to be more conservative on some issues (and yet be highly likely to see themselves as politically neutral), to oppose military spending and nuclear weapons, to perceive their family, school, God, and Government as being important influences over their lives.

The indifferent and antagonistic to religion group were also highly likely to be optimistic about the future. They were more likely than the religious groups to be radical in their political responses, although some subjects

in these groups displayed high support of the military and of nuclear armaments. The indifferent to religion group were the most likely to be politically neutral. The unsure about religion group were the most likely to be unsure about politics, the future, and nuclear armaments issues. The unsure, indifferent, and anti-religious groups were the least likely to say their parents, siblings, school, Government, and God were important influences in their lives: they were the most likely, however, to say that luck was an important influence in their lives.

Church Affiliational Differences

Subjects affiliated to a church were the most likely to be religious. They were also more likely to be optimistic about the future (especially the Catholics), to be more conservative about some issues and more definite in their political views generally (again, especially the Catholics). Attitudes to nuclear issues displayed large differences among various denominational groups. Protestants were the most likely to believe nuclear war means the death of the human race and were the most opposed to the manufacture of such weapons - which Catholic boys and non-affiliated subjects in general were the most likely to support. The small group of subjects believing nuclear war is prophesied in the Bible were mostly Protestants. Church affiliated subjects were the most likely to say that their family, God, and school were important influences on their lives. Catholic boys and non-affiliated subjects were the most likely to say their own choices and abilities were important influences on their lives while Protestants were the least likely to do so.

1.1 SEX DIFFERENCES

Belief Items

- (1) Girls were more likely than boys to believe in God, Creation, Heaven, the Divinity of Christ, and Life after Death. Except for the last item, X^2 for these sex differences was significant to .05 and beyond (see Appendix 8).
- (2) Boys were more likely than girls to believe in Hell, miracles, and Biblical Inspiration. The sex differences for these items were quite small. X^2 was significant to the .05 level only for the item on the Bible. On a six point Likert scale the boys were the most likely to say they strongly agreed with the statements that Christ is the Son of God, that the Bible is inspired by God, and that God created the world. Girls were more likely to say they agreed rather than strongly agreed.
- (3) Although girls displayed significantly higher levels of belief than boys for most of the Belief items, Lambda values indicated that knowing a subject's sex did not significantly alter the probability of accurately predicting whether or not they would believe in religious doctrines. Total numbers of affirmative responses (indicating belief in the items) ranged from 60% believing in God, Heaven and Christ's

Divinity to about 30% believing in Hell (see Appendices 9 and 16).

Mysticism Items

- (1) Girls were more likely than boys to say they felt very or reasonably close to God, that they often thought about the meaning and purpose of life, that life was meaningless, and about death (girls differed from boys the most for this item). X^2 for all four of these items was significant to the .0001 level.
- (2) Similar numbers of boys and girls said they had been aware of the presence of God or of something else spiritual. The majority of those saying they never had such experiences were boys; but among those who were unsure about them the majority were girls (see Appendices (See Appendices 8 and 17).

Personal Devotion Items

- (1) Girls were more likely than boys to attend church regularly, to pray regularly, to find prayer satisfying or helpful, to read the Bible or another holy book, and to rate themselves as having a more positive orientation to religion than boys. The most significant differences between the sexes were for the two items concerning prayer and the item on religious self-rating. Differences in church attendance and Bible reading were not statist-

ically significant (see Appendices 8, 9, 11, and 18)

Symbolic Ritual

- (1) Girls were more likely than boys to use ritual behaviours such as closing eyes or kneeling while they prayed or worshipped, and also to own religious objects or ornaments. X^2 for these differences was significant to the .01 level (see Appendices 8, 9, 10, and 19).
- (2) There was no significant difference between the sexes for their attendance at Communion, nor in their participation in fasting, temporary ritual abstinence and permanent ritual abstinence from food, and for lighting candles for religious reasons. (See 8 and 11)

Affiliation

- (1) Except for the Baptists and Catholics, there were a greater number of girls than boys in each of the denominations and religions listed.
- (2) The majority of subjects saying they did not belong to any church or religious organisation were boys (see Table 2).

Morality

- * (1) Girls were more likely than boys to say the seven Commandments listed either applied to them fully or applied to a limited extent.
- (2) The biggest differences between the sexes were in their responses to the Commandments for-

bidding stealing, bearing false witness, and covetousness. X^2 was highly significant for all three. The smallest differences between the sexes were for The Commandments to have only one God, to not blaspheme (X^2 significant to .05 for this item), to keep the Sabbath, and to honour father and mother (X^2 for this item also .05 in significance see Appendices 8 and 20).

1.2 AGE DIFFERENCES

Belief Items

- (1) Younger subjects were more likely than older subjects to believe in religious doctrines. Age differences for belief were not statistically significant however, *except between 14 and*

Mysticism Items *15 year olds (see Appendices 12)*

- (1) Older subjects were also less likely than younger subjects to say they had been aware of the presence of God at some time, or that they felt close to God. X^2 for this second item was significant to .05 (see Appendices

8 and 12

- (2) Older subjects were also less likely than younger subjects to say they often thought about the meaning of life, or the meaninglessness of life. They were, however, more likely to think about death. The trends for these items were not statistically significant.

Personal Devotion Items

- (1) There was an overall trend for younger subjects to be the most likely to attend church, pray, be satisfied with prayer, read the Bible, and to rate themselves as very religious, religious, and sometimes religious.
- (2) Those saying they never did these things and who rated themselves as critical or antagonistic to religion were the most likely to be older subjects, especially among the boys.

Symbolic Ritual Items

- (1) With the exception of the 15 year old girls, older subjects were less likely than younger subjects to engage in ritual prayer behaviour such as kneeling, closing eyes, clasping hands, and bowing head. They were also less likely to own religious ornaments and objects.
T-tests between the four age groups (13, 14, 15, and 16 year olds) indicated that these differences were significant up to the .01 level of statistical significance.
- (2) There were no significant differences between the age groups for attendance at Communion
(see Appendix 12)

Church Affiliation

- (1) 13 and 14 year olds were more likely than 15 and 16 year olds to say they were affiliated to one of the Protestant churches (e.g. Ang-

lican, Baptist, Presbyterian). There were no differences among those saying they were Catholic. Older boys were more likely than younger boys to say they had no church affiliation.

Morality Items

- (1) Younger subjects were more likely overall than older subjects to say the seven Commandments applied to them. This age difference was most likely to occur for the Commandments to have only one God, not to blaspheme, and to keep the Sabbath. These were not statistically significant.

1.3 STATE SCHOOL - CATHOLIC SCHOOL DIFFERENCES

Belief Items

- (1) Catholic school subjects displayed higher levels of belief (overall) compared to State school subjects. The smallest differences between them were for life after death and Hell. X^2 for all seven items was beyond the .0001 level of significance (see Appendices 8, 10, and 21)

Mysticism Items

- (1) Catholic school pupils were more likely than State school pupils to say they had experienced the presence of God and that they felt close to God. X^2 for these differences was

significant to the .0001 level. Catholic school subjects were also more likely than State school subjects to think about death and about the meaning of life. X^2 for these differences was also significant to .0001.

- (2) There was no significant difference between the school-types in how often they thought life was meaningless.

Personal Devotion Items

- (1) Catholic school subjects were more likely than State school subjects to go to church, to pray, to find prayer helpful or satisfying, and to rate themselves as either very religious, religious, or sometimes religious. (see Appendix 23)
- (2) State school subjects were the least likely to read the Bible.
- (3) Subjects who said they went to church more than once a week were equally likely to be State school pupils or Catholic school pupils.
- (4) There was more of a difference between the two groups in their level of church attendance than in their level of prayer. (see Appendix 11)
- (5) Sex differences among State school subjects were larger than those among Catholic schools.

Symbolic Ritual Items

- (1) Catholic school pupils were more likely than State school pupils to attend Eucharistic

services, to temporarily abstain from food, to clasp their hands, and to make the sign of the cross while praying, and to own religious objects and ornaments. Cramer's V results indicated that attending a Catholic school was associated with temporarily abstaining from food, crossing oneself while praying, and owning religious ornaments to the strength of .41 to .45. According to Lambda values there was a 19% greater chance that a subject would temporarily abstain from food or make the sign of the cross while praying, and a 38% greater chance they would own religious objects and ornaments if they attended a Catholic school (see Appendices 8, 9, 10, and 24)

- (2) Both school groups had similar numbers of subjects saying they closed their eyes when they prayed.
- (3) Those subjects who said they raised hands while they prayed were most likely to come from State schools, although this difference was not statistically significant.

Church Affiliation

- (1) 82% of the Catholic school girls and 86% of the Catholic school boys said they belonged to the Catholic church. 10% of both sexes at Catholic schools said they didn't belong to any religious organisation or denomination.

Table 2 Frequencies of subjects' affiliations

<u>Affiliational group</u>	<u>Females</u>		<u>Males</u>	
	<u>N</u>	<u>% of total</u>	<u>N</u>	<u>% of total</u>
Seventh Day Adventists			1	.003
Church of England	38	13	24	8.6
Baptist	5	1.7	6	2.1
Brethren			1	.003
Lutheran	1	.003		
Methodist	2	.006	1	.003
Pentecostal	5	1.7	3	1
Presbyterian	19	6.5	4	1.4
Roman Catholic	133	46	138	49
Salvation Army	4	1.3	2	.007
Another Christian denomination	6	2	2	.007
Another Religion	8	2.7	3	1
No Church affiliation	61	21.1	93	33.4

8% of Catholic school girls and 4% of Catholic school boys said they belonged to a Protestant church.

- (2) 48% of State school girls and 30% of State school boys said they belonged to one of the Protestant churches. 41% of the State school girls and 64% of State school boys said they did not belong to any church or religious organisation and 7% of State school girls and 6% of State school boys said they belonged to the Catholic Church. 5% of State school girls said they belonged to another religion (e.g. Bahai).

Morality Items

- (1) Subjects from Catholic schools were the most likely to say The Commandments applied to them. The biggest differences between them and State school subjects were for the first three Commandments (having only one God, not to blaspheme, and to observe the Sabbath). The smallest difference between school types was in their responses to the Commandment to honour mother and father. (See Appendices 8 and 25)

1.4 SELF-RATED RELIGIOSITY

Belief Items

- (1) Subjects rating themselves as very religious, religious, or as sometimes religious displayed

very high levels of belief (from 100% among the very religious to 50% among the sometimes religious). The unsure and indifferent to religion subjects displayed lower levels of belief (from 19% to 10%). The critical and antagonistic to religion subjects displayed the lowest levels of belief (0 - 3%). X^2 was highly significant for all belief items. Gamma values indicated a 70 - 80% increase in ability to predict levels of belief from religious self-ratings (*See Appendices 8 and 12*)

- (2) Those who were unsure about religion were the most likely to be unsure if they believed in Christian doctrines. Subjects in the indifferent, critical, or antagonistic to religion groups were the most likely to disbelieve, and to express this in stronger terms (up to 56% of the antagonistic subjects, 24% of the critical subjects, and 11% of the indifferent subjects said they strongly disagreed with belief items.) Associations between religious self-rating and belief were larger than for many other religiosity items

Mysticism Items

- (1) 100% of the very religious, 89% of the religious, and 78% of the sometimes religious subjects said they had experienced the presence

of God at some time. Most of the subjects in these groups also said they felt very or reasonably close to God. Few subjects in the other groups did so, with most saying they never experienced God's presence and did not feel close to God or that they were unsure about these things. Subjects in the most religious self-rating groups were also the most likely to think about the meaning of life and about death. Subjects who were critical or antagonistic to religion were the least likely to think of these things. X^2 for these differences was also highly significant

- (2) There was no statistically significant difference between the religious self-rating groups in how often they thought about life's meaninglessness, although the religious groups were the most likely to think about it, and the unsure about religion subjects (closely followed by the other groups) were the least likely to think on this topic.

Personal Devotion Items

- (1) The very religious, religious, and sometimes religious groups were the most involved in the various facets of personal devotion. The majority of these subjects prayed, attended church, felt satisfied with prayer or believed it was helpful, and read the Bible. The unsure about religion group contained many

subjects who did these things irregularly. The majority of indifferent, critical, and antagonistic to religion subjects never prayed, went to church, found prayer helpful or satisfying, nor read the Bible. Although there were some subjects who attended church irregularly (far more than amongst the indifferent and antagonistic to religion subjects). X^2 was highly significant for the differences for all four items (see Appendix 8)

- (2) The largest differences between the groups were for items concerning prayer, and the smallest for the item on Bible reading.

Symbolic Ritual Items

- (1) The biggest differences were for attendance at Communion-Eucharistic services and in using ritual behaviours such as kneeling and closing eyes while praying. Very few of the unsure, indifferent, the critical and antagonistic, participated in these activities. Most of the three religious groups did. X^2 for all of the ritual prayer behaviours, except for lying down, observing silence, and bowing at the waist, reached high statistical significance. X^2 for attendance at Communion or Eucharist was also highly significant. Temporary abstinence from food and owning or wearing religious objects or ornaments were also activities mainly engaged in by those rating

themselves as very religious, religious, or sometimes religious. X^2 for these items was also highly significant, but indicated that the magnitude of the differences between religious self-rating groups for these items was far smaller (see Appendix 3)

- (2) The smallest differences between self-rating groups was for the item on lighting candles for religious reasons. X^2 for this item was significant to the .05 level of probability.

Church Affiliation

- (1) None of the non-church affiliated subjects said they were very religious, and only 3% of these subjects said they were religious, and 12% said they were sometimes religious. The majority were unsure about religion, with sizable minorities saying they were critical or antagonistic to religion. Few described themselves as indifferent to religion.
- (2) The majority of subjects who were affiliated to a church chose either the religious, the sometimes religious, and to a lesser extent the unsure about religion classifications. Those saying they were very religious were more likely to be Protestants than Catholics. Anglicans were more likely than Catholics to be among the few church affiliated subjects saying they were indifferent, critical, or antagonistic to religion.

Morality Items

- (1) Subjects in the three most religious self-rating groups were more likely than the unsure, indifferent, and anti-religious groups to say that The Commandments in the morality section applied to them, except for the Commandment to honour one's parents, which many subjects from all the groups felt applied to them. X^2 for all of the other Commandments was highly significant.
- (2) Subjects in the indifferent, critical, and antagonistic to religion groups were the most likely to say The Commandments did not apply to them, especially those concerning God, blasphemy, and the Sabbath.
- (3) Subjects in the unsure about religion group were the most likely to say they did not know if The Commandments applied to them (see Appendix 8 and 12.)

1.5 CHURCH AFFILIATIONAL DIFFERENCES

- (1) Church affiliated subjects displayed the highest levels of belief. X^2 for all belief items was highly significant. Catholic subjects were the most likely to say they believed religious doctrines, followed by Anglican subjects. Presbyterians had the lowest level of belief out of these three groups. T-tests indicated the differences in belief levels

between Catholics, Anglicans, Presbyterians and the non-affiliated reached the .05 level of significance

Sex differences in belief were smaller among church affiliated subjects.

- (2) Non-affiliated subjects were highly unlikely to believe in religious doctrines. Lambda values indicated there was between 10 - 23% of an increase in the probability a subject would not believe if he or she was not affiliated to a church (see Appendix a)

Mysticism Items

- (1) Nearly 60% of Catholic and Protestant subjects said that at some time they had been aware of the presence of God, but only 15 - 20% of the unaffiliated subjects said they had had a similar experience. 40 - 70% of the church affiliated subjects felt either very or reasonably close to God while only 10 - 20% of the non-affiliated subjects did so. X^2 for these two questions was significant to the .0001 level of probability. Many subjects, both church affiliated and non-affiliated, thought about the meaning of life, but it was still the church affiliated who were the most likely to do so.
- (2) The difference between church affiliated and non-affiliated subjects for thinking about

death were smaller, but still statistically significant ($X^2 = .05$ level of significance).

- (3) There was no statistically significant difference between church affiliated and non-affiliated subjects for thinking of the meaninglessness of life (although the non-affiliated boys were the least likely to do so).
- (4) The Catholic subjects, among the church affiliated, were the most likely to experience, feel, and think on these things (see Appendix 8)

Personal Devotion Items

- (1) Catholics were the most regular in their church attendance and prayer (followed by the Protestants). The Protestant subjects were the most likely to read the Bible regularly. The largest difference between Protestants and Catholics was in how often they attended church. The Catholics were also slightly more likely to say they found prayer helpful or satisfying.
- (2) Non-affiliated subjects were less likely to participate in any of these activities. About 30% of non-affiliated subjects attended church irregularly and over 35% prayed at some time. They were less positive in their evaluation of prayer though. Very few non-affiliated

subjects ever read the Bible. X^2 was significant to .0001 for all five items.

- (3) (see Affiliation in ~~sec~~ 1.4 Self-Rated Religiosity for Affiliation and Religious self-rating).

Symbolic Ritual Section

- (1) Catholics were more likely than other subjects to temporarily abstain from food, to clasp their hands together, make the sign of the cross, kneel, and bend one knee while praying, to own or wear religious objects and to attend Communion-Eucharist services. Protestants were also likely to wear or own religious objects and to attend Communion-Eucharist services (Catholics are almost twice as likely as Protestants to do these things). Very few non-affiliated subjects took part in any of the Symbolic Rituals. X^2 for these items was significant to .0001 (see Appendix 8)
- (2) Protestants were the most likely to close their eyes and raise their hands while they prayed. Many Protestants also participated in other ritual behaviours while they prayed (but again, in lesser numbers than the Catholics).

Morality Items

- (1) Catholic subjects were the most likely to say that The Commandments applied to them fully.
- (2) Protestant subjects were among those who were the most likely to say that The Commandments applied to them to a limited extent (although there were many church affiliated subjects from all denominations who said that The Commandments applied to them fully).
- (3) Non-affiliated subjects were the most likely to say that The Commandments either did not apply to them or that they did not know. X^2 for five of the items was significant to the .0001 level, and for stealing X^2 was significant to the .01 level. Although there was a tendency for church affiliated subjects more than non-affiliated subjects to say The Commandment to honour mother and father applied to them, differences for this item were not statistically significant (see Appendix

2.1 ANALYSES OF VARIANCE

Two way analyses of variance were calculated for interval scale religiosity items using each of the five

independent variables. They were used to determine the relative strengths of each independent variable and to identify any interaction effects. The results pointed to the significance of church affiliation and self-rated religiosity (especially when acting together). The dependence of schooling differences upon these two influences was confirmed. Results also pointed to the relatively small influence of sex and the lack of any significant age influence for most of the items.

Church Attendance

Being affiliated with a church and rating oneself as being in some way religious were shown to be the major independent variables (of this study) on subjects' level of church attendance (together they accounted for approximately 66% of the variance in subjects' replies to this item). They also displayed a significant interaction effect. Attending a Catholic school was also shown to be a major influence on church attendance, but schooling combined with religious self-rating or affiliation did not produce such significant results as those variables did with each other. All three produced significant interaction effects. Sex was shown to be only a small influence and to have no significant interaction effects with the other variables. Age was not a significant influence (see Appendix).

Prayer

Self-rated religiosity and church affiliation were also the largest influences on subjects' regularity of prayer. Self-rated religiosity had more of an effect on

prayer than church affiliation. Self-rated religiosity also had more of an effect on prayer than it did on church attendance. Schooling was an important influence, although less than the other two variables. The interaction effect between sex and church affiliation was significant in its influence on prayer. Sex had more of an influence on subjects' prayers than on their church attendance. Age was not a significant influence by itself, but was an influential variable in interaction with church affiliation (see Appendix 26).

Bible Reading

Self-rated religiosity provided the largest individual source of variance in subjects' responses to this question. Church affiliation was also a significant influence on Bible reading. Together, these variables accounted for a significant proportion of differences between subjects for this behaviour. Schooling was not a very significant influence, and sex had no influence at all. Age had much more of an influence on Bible reading through its interaction with church affiliation than it did on other items.

Communion-Eucharistic Services

Age had no significant influence on subject's attendance at Communion-Eucharist services. Sex was only a significant influence on attendance at these services in interaction with church affiliation. Church affiliation was the largest influence on this behaviour. Self-rated religiosity and schooling were also major influences, the interaction effects of these last three were highly significant. The combination of self-rated religiosity and church affil-

iation had the most influence (accounting for about 66% of variance) on attending Communion-Eucharistic services.

3.1 SEX DIFFERENCES

Optimism-Pessimism Items

- (1) The girls were much more likely than the boys to be pessimistic about the future. The most statistically significant differences between the sexes were for the items on democracy and New Zealanders' standard of living. Sex differences for the items on detente and international co-operation were also highly significant. Lambda values indicated knowing a subject's gender provided a 10 - 17% increase in ability to predict their optimism or pessimism about future events in New Zealand, and a 28% increase in ability to predict their optimism or pessimism about the future safety of nuclear power plants (see Appendices 27, 28 and 31)

Conservatism Items

- (1) Boys were more likely than girls to favour strikes, unions, the unemployment benefit, the Government of the United States, capitalism, compulsory military training, and corporal punishment. X^2 was beyond the .05 level of significance for strikes and unions, and beyond the .001 level of significance for capitalism.
- (2) Girls were more likely to be unsure about the items overall than boys. Girls were more likely

than boys to have favourable attitudes to Bible classes in State schools and to have favourable attitudes to a decrease in defence spending. X^2 for this second item was beyond the .0001 level of significance.

- (3) Very few subjects supported communism or the Government of the Soviet Union, with the boys being the most likely to oppose these things. X^2 for the first item was beyond the .0001 and for the second it was beyond the .05 level. 50% of the subjects said they had favourable attitudes to the churches, and 80% said they had favourable attitudes to harder measures against violent criminals. X^2 for the item on churches was beyond the .05 level of probability. (see Appendices 27 and 32)

Political Self-rating Scale

- (1) Boys and girls were very similar in the way they described their political beliefs, although boys were slightly more likely to say they were right-wing. (see Appendix 23)

Nuclear War Items

- (1) Girls were less likely than boys to want to survive a nuclear war. Girls were also more likely to believe nuclear war meant the death of the human race. X^2 for both items was beyond the .0001 level of significance. Lambda values indicated that there was a 15% greater chance that girls would say they would not

want to survive such a war, and that they would say a nuclear war would end the human race.

- (2) The largest sex differences were for the question on the morality of having a career manufacturing nuclear weapons. Boys were more likely than girls to say that it was right for a person to have such a career. X^2 for this item was beyond the .0001 level of significance. Lambda values showed that there was 17% greater probability of subjects being opposed to such a job if they were female.
- (3) Few of either sex said they believed nuclear war was prophesied in the Bible: the boys were the most likely to say they did not believe it while the girls were most likely to say they did not know. X^2 for this item was beyond the .01 level of probability. 50% of the subjects said they believed nuclear weapons could destroy everything Christians have built over the centuries. The girls were less likely than the boys to say they believed this and were more likely to say they were unsure or did not know. X^2 for this item was beyond the .05 level of probability. (See App. 27, 28, 34)

Attributional Items

- (1) The subjects' own choices and abilities were the most likely to be described as the main influence in their lives. Only 21 of the 568 subjects said their own choices and abilities

were a small influence over their lives, and none of the subjects said these things had no influence at all. * Boys were more independent, saying they had more control over their lives than the girls. X^2 was beyond the .01 level of significance.

- (2) God, parents, and school were also seen as important influences, especially parents. Boys were more likely than girls to say that God either had a strong influence on their lives or none at all. The girls were most likely to say that God had either a moderate or only a small influence on their lives. X^2 for this item was beyond the .01 level of significance.
- (3) Siblings and luck were rated as being much less influential than the previous items and the Government mostly having very little influence at all. Girls rated their siblings as being more influential than the boys did. As with their ratings of the influence of God, the boys were most likely to say luck either had a lot of influence on them or none at all: while the girls were the most likely to say it had a moderate influence (see App. 35)

3.2 AGE DIFFERENCES

Optimism-Pessimism Items

- (1) Older subjects (especially the 16 year olds)

were more likely than the younger subjects to be pessimistic about the future. The items on the standard of living of New Zealanders, social tensions within New Zealand, and super power relations displayed the most statistically significant sex differences. T-tests for these items were beyond the .005 level of probability. (see App.29)

- (2) The items on nuclear war, poverty, unemployment, and disease also displayed significant age differences. T-test results for these ranged from being beyond the .05 to the .01 levels of significance.
- (3) Age differences were not as significant as sex differences. Also they were not always linear, with 14 and 15 year olds sometimes more optimistic than 13 and 16 year olds.

Conservatism Items

- (1) The older subjects were more definite in their political attitudes than younger subjects, being much more likely to say either yes or no to the items.
- (2) Disagreement with the churches and Bible study in State schools increased the most with increasing age.
- (3) Older subjects were the most in favour of unions, harder measures against violent offenders, and corporal punishment. X^2 was beyond the

.02 level of significance for the item on unions. T-tests were beyond the .02 and .05 levels of significance for the rest.

- (2) The older subjects were the most opposed to communism and the Government of the Soviet Union. They were also likely (especially the 16 year olds) to show less support than younger subjects for socialism and the unemployment benefit. T-tests for these items were beyond the .05 and the .01 levels of significance. Age differences for the rest of the items were not statistically significant (See App 27 and 29)

Political Self-rating Scale

- (1) Older subjects were most likely to say their political beliefs were left-wing or right-wing. Younger subjects were more likely to say they were politically neutral.

Nuclear War and Nuclear Weapons Items

- (1) Older subjects were slightly less likely to want to survive a nuclear war. Older subjects were more likely to believe nuclear war would mean the death of the human race. T-test results for the second item were beyond the .01 level of significance (see App 27)
- (2) Older subjects were the most likely to believe it was right for a person to have a job manufacturing nuclear weapons although there was also an increase of subjects being unsure about this issue among the older subjects. The T-

test value for this age difference was beyond the .01 level of probability.

- (3) The older subjects were more likely to say they were unsure whether nuclear weapons could destroy everything Christians have built over the centuries. The older subjects were also more likely than younger subjects to say that they did not believe nuclear war was prophesied in the Bible (see App. 27)

Attributional Items

- (1) Older subjects rated their own choices and abilities as having more influence over their lives than the younger subjects did. Consequently they were less likely than younger subjects to rate God, luck, parents, or siblings as being important influences in their lives.
- (2) A small minority among the older subjects said school and Government were very important influences over their lives: belief in luck and belief in God both displayed a tendency to decline with age. T-tests were significant for age differences in all the items (reaching the .05 or the .01 levels of significance) except for the item on Government (see App. 29)

3.3 CATHOLIC SCHOOL - STATE SCHOOL DIFFERENCES

Optimism-Pessimism Items

- (1) Catholic school subjects were more likely than

State school subjects to be optimistic about the future.

- (2) The largest differences between the two groups were the items on the New Zealand economy, nuclear power plants, tensions within New Zealand society, unemployment, and democracy in New Zealand. X^2 for these items was beyond the .001 or the .0001 levels of significance.
- (3) X^2 for the rest of the items ranged from the .05 to the .01 levels of significance. Despite differences between school-types being far more significant than those for sex, Lambda values indicated that sex was a more accurate predictor of optimism and pessimism (see App 2 Table 28)

Conservatism

- (1) Catholic school pupils were more likely than State school pupils to respond conservatively to these items. They were more likely to support Bible study in State schools, the churches, and capitalism, and to oppose strikes, communism, the Government of the Soviet Union. X^2 for items involving religion, communism, and the Soviet Union were beyond the .0001 level of significance, and for the other items X^2 was beyond the .05 or the .01 levels of significance.
- (2) The exceptions to the trend of greater conservatism among Catholic school subjects was that

they were the most likely to support unions, and to oppose compulsory military training. X^2 for these differences did not reach the .05 level of significance.

- (3) State school and Catholic school subjects were similar in their support of the unemployment benefit and the Government of the United States.
- (4) Boys from both school-types were the most likely to oppose a decrease in defence spending, with the Catholic boys displaying the most opposition. X^2 for this item was beyond the .0001 level of significance. Boys from Catholic schools were the most likely to favour corporal punishment while Catholic school girls were the most likely to oppose it. X^2 for this item was beyond the .05 level of significance. (See App 27)

Political Self-Rating Scale

- (1) State school subjects were more likely than Catholic school subjects to say they were neutral in their political beliefs.
- (2) Catholic school subjects were slightly more likely to say their beliefs about politics were right-wing. X^2 for this item was beyond the .001 level of significance. (see App 27)

Nuclear War and Nuclear Weapons Items

- (1) Catholic school boys were the most likely to

say they would want to survive a nuclear war, and were the least likely to believe a nuclear war would mean the death of the human race. X^2 was beyond the .01 level of significance for the first item and the .001 level for the second (See App 27)

- (2) Catholic school and State school boys (especially the former) were the most likely to support a career manufacturing nuclear weapons. State school girls were the most likely to oppose such a job. X^2 for this item was beyond the .0001 level of significance.
- (3) State school pupils were the most likely to say they did not know whether nuclear war is prophesied in the Bible. Catholic school pupils were the most likely to say they did not believe this. Catholic school pupils were the most likely to say that nuclear weapons could not destroy everything Christians have built over the centuries. X^2 for the first item was beyond the .001 level of significance, and beyond the .0001 level for the second.

Attributional Items

- (1) Catholic school boys were the most likely to say their own choices and abilities either influenced their lives almost entirely or had a strong influence. X^2 for this item was beyond the .001 level of significance.

- (2) Catholic school pupils were more likely to believe in God than State school pupils (X^2 was beyond the .001 level of significance for this item) and were also much more likely to say God was a major influence in their lives. X^2 for this item was beyond the .0001 level of significance. Parents, siblings and school were also more likely to be seen as important influences by the Catholic school pupils than by the State school pupils. X^2 was beyond the .05 level for the item on parents.
- (3) Catholic school pupils were the most likely to disbelieve in luck while State school pupils were the most likely to be unsure (both groups had a similar number of pupils who believed in it). X^2 for this item was beyond the .05 level of significance. State school pupils were more likely than Catholic school pupils to say luck had an influence on their lives.

3.4 SELF-RATED RELIGIOSITY DIFFERENCES

Optimism-Pessimism Items

- (1) Subjects rating themselves as religious and sometimes religious were more optimistic than subjects from other self-rating groups about the New Zealand economy and about democracy in New Zealand. X^2 was beyond the .05 level of significance for these items.
- (2) The religious, sometimes religious, and indif-

ferent to religion subjects were the most likely to be pessimistic about violent crime in New Zealand, and the religious, sometimes religious, and critical of religion were more pessimistic about tensions in New Zealand society. X^2 for these items was beyond the .05 level of significance.

- (3) The indifferent, critical, and antagonistic to religion subjects were more pessimistic than other subjects about the future safety of nuclear power plants. X^2 for this item was beyond the .01 level of significance.
- (4) Differences for the other items between the self-rating groups varied with the pro-religious sometimes being more optimistic and sometimes more pessimistic. These differences were not statistically significant (see App 27)

Conservatism Items

- (1) The very religious, religious, and sometimes religious were the most likely to respond conservatively, while the other groups were more likely to respond radically, to the items.
- (2) The three pro-religious groups were most likely to support the churches and Bible study in State schools. The other groups, especially the critical and antagonistic to religion groups, were the most opposed to these items. X^2 for these two items was beyond the .0001

level of significance. The pro-religious groups were also the most likely to support capitalism and oppose communism, while the opposite was true among the other groups. X^2 for these items was beyond the .05 level of significance.

(3) The unsure, indifferent, critical, and antagonistic to religion groups were the most likely to support strikes, communism, and the unemployment benefit. The three pro-religion groups were the most likely to support harder measures against violent criminals and corporal punishment. These differences were not statistically significant.

(4) It was interesting to note that the pro-religious were slightly more in favour of decreasing New Zealand's defence spending, and less in favour of compulsory military training, and more likely to be unsure about the Government of the United States compared with the other subjects.

Political Self-Rating Scale

(1) The subjects who said they were indifferent to religion were also the most likely to say they were neutral in their political beliefs. The very religious, religious, and sometimes religious were also highly likely to say they were politically neutral.

- (2) Subjects who said they were critical or antagonistic to religion were the most likely to say their political beliefs were either left or right-wing.

Nuclear War and Nuclear Weapons Items

- (1) The indifferent to religion subjects, followed by the religious subjects, were the most likely to want to survive a nuclear war. The critical and antagonistic to religion subjects were the least likely to want to survive a nuclear war. X^2 for this item was beyond the .05 level of significance. The very religious, religious, and to a lesser extent, the sometimes religious, were the most likely to believe a nuclear war would mean the death of humanity. The indifferent to religion subjects were the least likely to believe this.
- (2) The very religious and the religious were the most likely to say it was immoral for a person to have a career manufacturing nuclear weapons. The other groups were much more likely to support such a career, especially the indifferent to religion group.
- (3) The few subjects believing that nuclear war was prophesied in the Bible were most likely to be from the very religious, religious, or sometimes religious groups, although one or two subjects who were indifferent or antagonistic to religion also believed this.

The pro-religious groups were most unsure about this item while the other groups were the most likely to simply say they did not know or that they did not believe it. X^2 was beyond the .001 level of significance for this item.

- (4) The three pro-religious groups were the least likely to believe nuclear weapons could destroy everything Christians have built over the centuries. The other groups, especially the unsure about religion group, were much more likely to do so. X^2 reached the .01 level of significance for this item (see App 27.

Attributional Items

- (1) There was little difference between the religious self-rating groups in how much influence they attributed to their own choices and abilities.
- (2) Subjects in the very religious, religious, and sometimes religious groups were more likely than other subjects to rate their parents and siblings as important influences on their lives (the exception to this trend were the girls who were antagonistic to religion, who were also highly likely to rate their family members as important influences in their lives). X^2 was beyond the .001 level of significance for this item. Tau C and Somer's D values indicated more of a correlation between religious

self-rating and attribution of parental influence than for religious self-rating and attribution of sibling influence.

- (3) Those in the pro-religious self-ratings were also more likely than the other groups to rate their schooling and the Government as being important influences on their lives. X^2 for both these items was beyond the .0001 level of significance. Tau C and Somer's D values indicated there was more of an association between religious self-rating and attributions about schooling than religious self-rating and attributions about Government.
- (4) The critical of religion and antagonistic towards religion subjects were the most likely to believe in luck and the least likely to believe in God. X^2 for the second item was beyond the .0001 level of probability. The pro-religious subjects were the least likely to believe in luck and the most likely to believe in God.
- (5) The critical of religion and the antagonistic to religion subjects were the most likely to say luck was an important influence on their lives. The very religious, religious, sometimes religious and indifferent to religion subjects were the least likely to do so.

- (6) The very religious, religious, and sometimes religious subjects were the most likely to say God influenced their lives almost entirely, had a strong influence, or was a moderate influence. Four of the five girls who said they were very religious said God influenced their lives almost entirely. X^2 was beyond the .0001 level for these differences. Also Tau C and Somer's D values indicated that there was a greater correlation between religious self-rating and attributions about God's influence than for any other item in the attribution section. (See App 27 and 30)

3.5 CHURCH AFFILIATIONAL DIFFERENCES

Optimism-Pessimism Differences

- (1) Catholics were more likely than other subjects to be optimistic about future events. Non-affiliated subjects were the most likely to be pessimistic. The Protestant subjects alternated, tending to be more pessimistic on some items, but more optimistic on others.
- (2) The items on nuclear war, a rise in tensions in New Zealand society, unemployment, and democracy in New Zealand all produced X^2 that reached the .05 level of probability. ²⁷

Conservatism

- (1) Catholic subjects were the most likely to have

negative attitudes to communism, the Government of the Soviet Union, and compulsory military training. They and the Protestants were the most likely to support the churches, and Bible classes in State schools. X^2 for these two items was beyond the .0001 level of significance.

- (2) Catholic subjects were the most likely to support unions, harder measures against violent criminals, capitalism, and corporal punishment. X^2 for the item on unions reached the .01 level of significance and for item on capitalism reached the .05 level of significance.
- (3) Protestants were more likely than other subjects to have positive attitudes to the Government of the United States.
- (4) Catholic subjects were the most divided over the question of New Zealand's defence spending. Catholic boys were the least likely to say they agreed while the Catholic girls were the most likely to favour it. (See App 27)

Political Self-Rating Scale

- (1) Non-affiliated and Protestant subjects were the most likely to say they were politically neutral.
- (2) Catholic subjects were more likely to describe themselves as left-wing or right-wing.

Nuclear War and Nuclear Weapons

- (1) The Protestant girls were the least likely of all subjects to want to survive a nuclear war. Protestant subjects were also more likely to say nuclear war meant the death of the human race. Non-affiliated subjects and Catholic boys were the least likely to say that nuclear war would be the end of humanity.
- (2) Catholic boys and non-affiliated boys were the most likely to believe it was right for people to have careers in the nuclear weapons industry. Protestants and non-affiliated girls were the most likely to say it was not right to have such a job.
- (3) Protestant boys were the most likely to believe nuclear war is prophesied in the Bible. Catholics were the least likely to believe this. X^2 for this item was beyond the .001 level of significance. Non-affiliated subjects were the most likely to believe that nuclear weapons could destroy everything Christians have built over the centuries. The Catholic subjects were the least likely to believe this, while the Protestants were the most likely to be unsure. X^2 for this item was beyond the .01 level of significance.

Attributional Items

- (1) Catholic boys, followed by the non-affiliated

subjects, were the most likely to say their own choices and abilities either influenced their lives almost entirely, or had a strong influence. X^2 for this item was beyond the .0001 level of significance.

- (2) Catholics were the most likely to believe in God, non-affiliated subjects were the least likely to do so. X^2 for this item was beyond the .0001 level of significance. Catholics were the most likely to say God had an almost entire, a strong, or a moderate influence on their lives. Non-affiliated subjects were the most likely to say God had no influence at all over their lives. X^2 for this item was beyond the .0001 level of significance. Parents and siblings were rated as being more influential by Catholics and Protestants than by the non-affiliated. X^2 for the item on parents was beyond the .0001 level of significance. Church affiliated subjects also rated school as having more of an influence on them than non-affiliated subjects did.
- (3) There was no statistically significant difference between Catholic, Protestant, and non-affiliated subjects for belief in luck and for ratings of its influence.
- (4) Differences between the groups in their ratings of the influence of Government were also not statistically significant (see Appendix)

CHAPTER IV

DISCUSSION

The discussion chapter contains four sections. The first deals with sex differences, the second with age differences, the third with school and church affiliational differences, and the fourth with self-rated religiosity differences.

1.1 SEX DIFFERENCES

The findings of this study that girls were more likely than boys to be religious corroborated the results of the previously mentioned New Zealand and overseas studies in this area. The largest sex differences tended to be in the personal expressions of religiosity, rather than corporate practices such as church attendance. The very large sex differences in religious attitudes and beliefs also found by the small numbers of previous studies specifically investigating such differences (e.g. Barlow, 1963; Darwick, 1968; Nalder, 1974; and Webster, 1976) reinforce the conclusion that research into adolescent religiosity in New Zealand has been misdirected by concentrating so much on sex differences in involvement in the corporate activities of religious institutions (e.g. Anderson, 1970; Patterson, 1969; Garwood, 1974; Woolford and Law, 1980; Hill, 1982; Stuart, 1982; Mol, 1984).

Batson and Ventis, (1982) describe how the differing socialisation of the sexes may cause the girls to develop more submissiveness, guilt and anxiety, than the boys,

making them more concerned with personal worth and purpose, and therefore with religion. The findings of this study that girls were far more likely than boys to think about the meaning of life, life's meaninglessness, and death, and to say they thought the Commandments not to steal, desire someone else's goods or possessions, and not to bear false witness, applied to them (and the fact that these were among the most significant sex differences) seemed to support such a theory. The findings of the non-religious sections of the questionnaire that girls were more pessimistic about the future (as has been found in many other studies, e.g. Shallcrass and Gavriel, 1976; Gray and Valentine, 1984) and less independent in their perceptions of influences in their lives provided further support for the existence of greater anxiety and submissiveness among girls (Thomas and Weigert, 1971; and Weigert and Thomas, 1972; found Catholic girls to be more conforming than Catholic boys in three different cultures).

Further research with instruments (such as projective essays or open-ended interviews) able to provide more insight into the personal feelings and motivations of subjects is needed to assess the relationship between these things and the greater religiosity of women and girls (especially when areas such as the supposedly greater submissiveness of women are still the subject of debate among researchers, see Sistrunk and McDavid, 1971; Goldberg, 1975; Eagly, 1978; Eagly and Carli, 1981; and Karabenick, 1983).

Finally, this study's finding that girls and boys

displayed no difference in how often they said they experienced the presence of God was at variance with the conclusions of Pafford (1973), Nalder (1974), Robinson (1976), Almond (1980), and Charlesworth (1980), that girls are much more likely than boys to do so. The lack of a sex difference for this item in this study may have been the result of it having a differing conceptualisation of religious or mystical experience (especially as Nalder (1974), and Pafford (1973), had very broad definitions including erotic and aesthetic experiences). This possibility is supported by the fact that girls were much more likely than boys to feel close to God.

1.2 AGE DIFFERENCES

As has been found previously in New Zealand and elsewhere, there was an overall tendency for religiosity to decline with increasing age (in all five dimensions). The age differences in this study were not as consistent nor as significant as those of previous investigations (e.g. Hyde, 1965; Francis, 1978; 1979; and Greer, 1981). This was probably due to the larger than normal proportion of the sample (mainly those from Catholic schools) exhibiting comparatively high levels of church involvement. Wildbore (1967), and Francis (1977; 1979), found (in New Zealand and Britain respectively) that positive attitudes to religion and other measures of religiosity such as belief are less likely to decline with increasing age among subjects who exhibit such high levels of church involvement.

The development of adolescents' mental abilities

(especially as described by Piaget) was reflected in the findings that older subjects were the most likely to have an opinion about the various conservatism items and to describe themselves as left-wing or right-wing in their political beliefs; the younger subjects were the most likely to be unsure about the items and to describe themselves as politically neutral. The older subjects were also more likely than the younger subjects to be pessimistic about the future, which may also arise from this increase in cognitive ability and the resulting concern with personal and social problems that it allows.

Kagan (1984a; 1984b) proposes that adolescents may adopt religious beliefs as a way of gaining some security and stability when their cognitive development allows them to find an increasing number of inconsistencies and contradictions in the people and institutions around them. This did not receive much support from this study's findings of a decline in religiosity with increasing age. Also, older subjects were less likely to think about the meaning, and meaninglessness of life which seems to contradict Kagan's conceptualisation of adolescents seeking 'superordinate' or overarching beliefs and philosophies to cope with an increasingly complex world. The findings of this study that older subjects were more likely than younger subjects to have negative attitudes to the churches and to be critical or antagonistic to religion may, however, support Kagan's ideas about their increase in ability to detect inconsistencies. Perhaps the antipathy of the older subjects to the churches and religion in general is due to the increasing number of contradictions and anomalies they are able to perceive in these things.

Another possible explanation of the decrease of involvement and increase in negativity towards religion among older subjects is their increasing independence (older subjects were more likely than younger subjects to say their own choices and abilities were the most important influences in their lives) and the decreasing use they are likely to make of metaphysical explanations of the world (older subjects were less likely than younger subjects to believe in God and luck and to rate them as having any influence over their lives). The older subjects may thus move away from religion and be more likely to develop negative attitudes towards it because they perceive it as redundant and as contradicting their assumptions about their lives and the world around them.

This explanation, however, remains tentative, and research like that of Glock and Stark (1978) is needed which can evaluate strategies of perceiving and explaining the world (e.g. naturalistically, or supernaturally), and how these may change from childhood to adolescence).

1.3 STATE SCHOOL - CATHOLIC SCHOOL AFFILIATIONAL DIFFERENCES

The large differences in religiosity between Catholic school and State school subjects, and Catholic and Protestant subjects seem to provide some support for Loft (1974) and especially Flynn (1984) who describe Catholic schools as having a crucial role in the greater overall religiosity of Catholic teenagers. Analysis of variance results, however, indicated that the influence of schooling was only minor compared to that of church affiliation and

self-rated religiosity. Also, to reach definitive conclusions on the effects of schooling the religiosity and influence of the subjects' parents (Cohen, 1974; Francis and Carter, 1980) must be measured (a task this and other studies have found extremely difficult because of schools' policies on pupils giving such information). Also, there is a need for studies comparing Catholics in State schools and Catholics in Catholic schools, such as that attempted by Aitkins (1984), (whose conclusions that Catholics attending State schools are more religious than other Catholics were invalidated by methodological problems in her study).

Catholic subjects were the most likely to be optimistic about the future. These results (along with the greater overall religiosity displayed by Catholic subjects) support the application of Durkheim's theories on social integration and control to the beliefs and behaviours of Catholics by Salisbury (1970), and Hornsby Smith et al (1985). Durkheim argued that when people are well integrated into a group they are protected to an extent from the impact of tragedies, frustrations, and anxieties. It may be that the security Catholic teenagers derive from belonging to an overarching organisation like the Catholic Church and from sharing common rituals and beliefs, (e.g. weekly mass, temporary abstinence from food etc.) is reflected in their higher levels of optimism about the future compared to the other subjects. Furthermore, the finding that Protestant subjects were sometimes among the most pessimistic about the future may result in part from their comparative lack of group integration. Durkheim

comments on this phenomenon within Protestantism when he says that it "concedes a greater freedom to individual thought than Catholicism ... it has fewer common beliefs and practices" (Durkheim, 1951, P.209). Shallcrass and Gavriels' (1976) conclusion that among teenagers 'believers' are more optimistic than 'non-believers' obviously needs (in the light of these results) to be qualified with reference to the denominational background of the subjects involved.

Catholic subjects were more likely than Protestant and non-affiliated subjects to be conservative in their responses to various political issues. This finding, and especially the overwhelming opposition among Catholics to communism and the Government of the Soviet Union, corroborated the findings of Hill, (1976). Catholics greater support for capitalism contradicted Cameron's (1969) study. He found no Protestant-Catholic differences on this issue.

There were, however, a few anomalies in this trend. Although they were the most likely to oppose strikes the Catholic subjects were also the most likely to support unions. Also, although they were consistently more conservative in their responses to the conservatism section, the Catholic subjects were equally as likely to describe themselves as being left-wing as they were to say they were right-wing, when answering the political self-rating question. Catholics were the most likely to have what could be seen as a perceived enemy (the U.S.S.R.) but they were more divided than other subjects over issues relating to war, with Catholic boys being the most militaristic

and the Catholic girls being the most anti-militaristic in their views, and both being more opposed than other subjects to compulsory military training. Finally, the finding that Catholic boys were among the most individualistic (rating their own choices and abilities as being the major influence in their lives) and among the most conservative, appeared to corroborate Glock and Piazzas' (1978) conclusion that a strong relationship exists between these two variables. This was contradicted, however, by the finding that non-affiliated subjects were also more likely to be individualistic but were highly unlikely to be conservative.

These results lead to the same conclusion as that of Balwick et al (1975) that "there is an empirical but not necessarily a logical connection" between religion and conservatism. Why Catholics are more conservative on some issues but more radical on others is a question that can only be answered by using research instruments able to identify differing areas and types of conservatism (see Furnham, 1985; Hoge and Zuluera, 1985; and Ostling, 1985).

The higher levels of militarism among Catholic boys deserves further comment. Catholic boys were the most likely to oppose a decrease in defence spending and most likely to agree with someone having a job manufacturing nuclear weapons. These results compliment those of Gray and Valentine (1984), who found Catholic school boys the most likely to justify war for aggressive reasons. Catholic girls were completely opposite to the boys in their

responses (Catholic girls were also more likely to say they were left-wing and Catholic boys were slightly more likely to say they were right-wing when answering the political self-rating scale). This result is surprising as both sexes are part of the same church and the same schooling system and display less sex differences in religiosity than many other teenagers. How could two such divergent viewpoints exist within an institution that has previously been described as exerting very considerable influence and constraint (behaviourally and ideologically) upon all its adherents? There may be a conflict here between the official preaching and teaching of the Catholic Church and the attitudes and beliefs of some of the boys coming out of their schooling system.

Besides being more pro-military and pro-nuclear Catholic boys were among the least likely to believe there would be a nuclear war in their lifetime, and least likely to believe that nuclear weapons could destroy the human race and everything Christians have achieved over the centuries. They were also the most likely to say they would want to survive a nuclear war. This apparent optimism about nuclear weapons, their use, and their effects could be the result of a coping strategy of denial to deal with anxiety about nuclear war (Churches, 1984; Evans, 1984; Peattie, 1984; Quick, 1984). Some researchers, however, argue that only adults can fully develop such strategies, and those of younger people often offer little protection from the stress of anxiety about possible nuclear annihil-

ation (McSweeney, 1984; Yudkin, 1984). Further research is needed to clarify the relationship between having militaristic political attitudes and being optimistic about the use and effects of nuclear weapons, as well as the relationship between having a perceived enemy and agreeing with the need for such weapons. The small minority of Protestants believing nuclear war to be prophesied in the Bible needs to be studied to learn about their perceptions of nuclear war and national enemies, and how they differ from Catholic boys. Finally the high numbers of non-affiliated boys wanting to survive a nuclear war and not believing such a war would destroy humanity also needs investigation to see how they differ from these other two groups.

1.4 RELIGIOUS SELF-RATING DIFFERENCES

The very religious, religious, and sometimes religious subjects were the most likely to be optimistic about democracy in New Zealand as well as the economy. They were also the most likely to support capitalism. This indication of support for the political status quo among the pro-religious may corroborate Grönblom and Thoragaards' (1981) analysis of religion as a sub-system providing moral sanctions to dominant cultural values. The three pro-religious groups were also the most likely to be pessimistic about tensions within New Zealand society, and violent crime, and the most likely to support harsher punishment for violent criminals and corporal punishment in secondary

schools. These results may have been the product of a greater level of authoritarianism among the pro-religious subjects. This issue needs more in-depth research, especially of the type that will distinguish between differing orientations to religion among religious subjects (Kahoe, 1977).

The pro-religious subjects displayed little difference from other self-rating groups in how often they thought about the meaninglessness of life. This is not surprising as "many theorists believe that twentieth century society leaves people with a sense of meaninglessness, purposelessness, or anomie" (Gruner, 1984). The finding that the very religious, religious, and sometimes religious were the most likely to think about the meaning of life and about death may, however, provide a challenge to the theories of researchers like Batson and Ventis (1982; 1984) who argue that everyone displays 'ultimate concerns'. This challenge is, of course, tentative. It highlights the need for researchers to investigate the 'depth' of people's beliefs and attitudes and whether these go as 'deep' as specifically religious concerns. Also, if it is true that one of the main functions of contemporary religion is to provide meaning (Greely, 1972) then why do so many teenagers who are religious display little difference from those who are not, in how often they feel life is meaningless? Obviously more sophisticated levels of research are needed.

The pro-religious were the most likely to oppose

compulsory military training and to support a decrease in defence spending. They were also more likely to say that it was immoral to have a job manufacturing nuclear weapons. The differences between the religious self-rating groups for these three items were not statistically significant however. This means that the greater militarism among Catholic boys is only slightly modified by their religious self-ratings, with Catholic boys who were pro-religious only slightly less likely to be militaristic than those who were unsure, indifferent, or anti-religious. Hoge and Zuluenta (1985) report similar findings with their results that among many American Christians, religion displayed only a limited effect on secular values and attitudes.

Finally the greater influence attributed to parents by the pro-religious subjects is in accord with the findings of Weigert and Thomas (1972) who report high religiosity among teenagers whose parents provided a lot of support and control over them (see also Holm, 1985). Also the larger amount of influence the pro-religious attributed to God as well as to their own choices and abilities confirmed Ritzema's (1979) findings that attributions of the effects of God on life events were not related to the subjects' 'locus of control' (or sense of self control). Attribution results also confirmed Spilka, Shaver, and Kirkpatrick's (1985) findings that people can often attribute influences to supernatural and natural sources concurrently, and Gorsuch and Smith's (1983) finding that subjects who feel close to God are the most likely to see

God as influential in their lives.

The unsure about religion subjects were also more likely than other subjects to be unsure about religious beliefs and mystical experiences, and to not know whether The Commandments applied to them or not. They were also among the most likely to describe themselves politically neutral. This uncertainty about religious matters did not extend to the conservatism, optimism-pessimism and nuclear weapons items however.

The indifferent to religion subjects displayed the most apathy towards issues and ideologies. They were among the most likely to say they did not know what they believed about Christian doctrines, and were among the least likely to be religious in any way. The subjects who were indifferent to religion were also the least likely to believe in luck or to say it had any influence on their lives. They were also the most likely to say they were neutral in their political beliefs. It is interesting that very few subjects chose this particular religious self-rating.

Those who were critical of religion often had a lot more church involvement and exhibited higher levels of religious behaviour and belief than the indifferent to religion group. They were less radical in their responses to the conservatism items than the antagonistic to religion subjects. They were also highly likely to believe in luck and to see it as an important influence. Along with the indifferent to religion and the antagonistic to religion subjects they were the least likely to see parents, Government, God, siblings and school as influenc-

ing them. The antagonistic to religion subjects were the most likely to see the people and institutions listed in the attribution section as having no influence on their lives at all. They were the most likely to believe in luck and to see it as an important influence in their lives. They were the least likely to rate themselves as politically neutral and most likely to rate themselves as left-wing or right-wing (especially left-wing). They were the most likely to believe nuclear war could destroy everything Christians have built over the centuries, and (with the critical of religion subjects) to oppose the churches, and Bible classes in State schools and support communism, socialism, strikes etc.

These results provoked many questions. For example, do the critical and antagonistic to religion subjects hold any other metaphysical beliefs besides luck? Do some believe in horoscopes (Mol, 1971), folk religions or magical beliefs (Hornsby Smith et al, 1985). Are there cognitive or emotional similarities between the religious and the anti-religious in their acceptance of metaphysical or supernatural beliefs? Writers like Fowler (1981) would say yes, and argue that the underlying process of 'faith' is similar for all of them. Furthermore, how are the political and spiritual beliefs of these subjects related to their negative attitudes to religion (or more specifically, Christianity)? Is the apparent unconcern of the indifferent to religion an overall attitude to the world in general? How else do these particular subjects differ from the others? Finally, how neutral towards religion are

those saying they were basically unsure about it? Are these teenagers at a certain stage in religious development, or are they in the process of moving away from religion? Obviously there is a huge field of potential research here.

CHAPTER V

CONCLUSIONS

1.1 SEX DIFFERENCES

The girls were more likely to be religious than the boys - especially in the personal aspects of religion. This result, as well as the greater pessimism, dependence, concern with life and death, and anti-militarism found among girls indicated a more sensitive and thoughtful approach to the world (far less common among boys). The finding that these attributes are significantly affected by the influence of social forces (e.g. Catholic girls are far more optimistic and concerned with ultimate issues than non-affiliated girls) provides further support for theories attributing the greater religiosity of girls to socialisation rather than inherent personality traits (e.g. Batson and Ventis, 1982).

1.2 AGE DIFFERENCES

The subjects displayed a tendency to become more concerned about the future, to be more confident in their political beliefs, and to be more independent concerning their perceptions of the influence of society and the family as they grow older. An increase in separation from, and alienation towards the churches and religion in general also occurred among the older subjects. The nature of this study prevented it from providing conclusive support

for any of the ideas about 'religious decay' in adolescence. It did indicate possible relationships between both social development (involving an increasing inclination towards independence) and cognitive development (providing an increasing ability to understand abstract ideas and to perceive discrepancies and problems) with the decline of religiosity with age.

1.3 SCHOOLING DIFFERENCES

Differences between the religiosity of Catholic school pupils and State school pupils were mainly due to the high levels of membership in the Catholic Church among the former, as well as their religious self-ratings. More studies comparing Catholics from Catholic schools and Catholics from State schools controlling for parental religiosity, subjects' religious involvement, etc. are needed to provide reliable findings about the effects of Catholic schools on the religiosity of their pupils. A further observation is that the role of Catholic schools in the political socialisation of young Catholics also required further research, especially among Catholic boys.

1.4 SELF-RATED RELIGIOSITY DIFFERENCES

Self-rated religiosity was highly associated with subjects' responses to all five of Smart's religiosity dimensions. These results indicate their validity as measures of religion. The particular ratings subjects chose also appeared to indicate underlying attitudes or orientations to other areas such as politics or the future. A

whole new 'topography' of positions on religion remains to be further explored among these adolescents with the use of attributional methods. It is clear that this approach is more informative in studying adolescents and religion than those that focus on the religious minority among adolescents.

1.5 CHURCH AFFILIATIONAL DIFFERENCES

Catholics displayed (by their higher levels of institutional involvement) a greater integration with their church than Protestants. Durkheim's theories regarding greater security among people that are well integrated into an organisation are supported by the tendency of greater optimism among Catholic subjects. The greater opposition to communism among Catholics may be caused by their perceptions of it as a rival system, as well as its other aspects, but this needs further investigation. It is obvious that whether they like it or not, many teenagers in New Zealand are very influenced to some degree by religion. Many more are not, and exhibit marked differences in world view from those who have been involved in church life.

4

ACKNOWLEDGEMENTS

In one of his short stories H.G. Wells comments on the ever increasing number of noncombatants involved in supplying and supporting those who are engaged in modern warfare. The completion of this thesis, like other modern battles, has been achieved with the help of a large unseen army. I would like to express my appreciation to staff of the Psychology Department (especially Dr Garth Fletcher), the University Library, and the University Computer Centre. I would further like to express my greatest thanks to my Supervisor, Dr Barrie Stacey for his patient and thoughtful guidance, to Margaret Ogilvie for her proof-reading of the manuscript, to Merle Glasgow for her excellent typing, to my family for their unremitting support and care, and to my Lord and Saviour Jesus Christ.

PERIODICALS

- Ajenian, R. (1985, September). Jerry Falwell spreads the word. Time, pp.50-52
- Archer, A. (1975). Remain in the state to which God has called you. Archives de Sciences Sociales des Religions, 20, 67-78.
- The Australian (1970, November 24). Cited in Blaikie, W.H. (1978) Religious Groups and World Views. In F.J. Hunt (Ed.), Socialization in Australia (pp.147-169). Australia: Australia International Press and Publications.
- Balswick, J., Ward, D.M. & Carlson, D.E. (1975). Theological and socio-political change among conservative students. Review of Religious Research, 17, 61-67.
- Batson, C.D. (1977). Experimentation in psychology of religion. Journal of the Scientific Study of Religion, 16, 413-418.
- Batson, C.D. & Ventis, W.L. (1985) Misconceptions of Quest, a reply to Hood and Morris. Review of Religious Research, 26, 398 - 408
- Black, A.W. (1985). The impact of theological orientation and of breadth of perspective on church members attitudes and behaviours, Roof, Mol, and Kaill, revisited. Journal Scientific Study of Religion, 24, 87-100.
- Boshier, R. (1978). Transition from childhood to adulthood: A longitudinal study of attitude change over four years. New Zealand Journal of Educational Studies, 13, 52-66
- Brown, L.B. (1964). Classifications of religious orientation. Journal of the Psychology of Religion, 4, 91-99
- Bruce, S. (1983). Conservative protestantism in the U.K. Sociological Review, 31, 453-467.
- Cameron, P. (1969). Catholic and Protestant attitudes to capitalism. Journal of the Scientific Study of Religion, 8, 165-166.
- Cohen, S.M. (1974). The impact of Jewish education on religious education and practice. Jewish Social Studies, 36, 316-327.

- Doress, I. & Porter, J.N. (1978). Kids in cults. Society, 15, 69-71.
- Eagly, A.H. (1978). Sex differences in influencability. Psychological Bulletin, 85, 86-116.
- Eagly, A.H. & Cavli, L.L. (1981). Sex of researchers and sex typed communications of sex differences in influencability: A meta analysis of social influence studies. Psychological Bulletin, 90, 1-20.
- Feagin, J.R. (1964). Prejudice and religious types. Journal of the Scientific Study of Religion, 4, 3-13.
- Filsinger, E. (1976). Tolerance of non-believers: A cross-tabular and log-linear analysis of some religious correlates. Review of Religious Research, 17, 232-241.
- Flynn, M. (1984b, November). Religious education in Catholic Schools: which direction should we take? Word of Life, pp.20-25.
- Francis, L.J. (1977). Readiness for research in religion. Learning for Living, 16, 109-114.
- Francis, L.J. (1978). Measurement reapplied: Research into the child's attitude towards religion. British Journal of Religious Education, 1, 45-51.
- Francis, L.J. (1979). The child's attitude to religion: A review of research. Educational Research, 21, 103-108.
- Francis, L.J. & Kay, W.K. (1984). Attitudes towards religion. British Journal of Educational Studies, 32, 45-50
- Francis, L.J. (1986). Denominational Schools and attitudes to Christianity. British Educational Research Journal, 12, 145-152.
- Friend, W.B. (1971). New methods of evaluation. Notre Dame Journal of Education, 2, 76-83.
- Furnham, A. (1984). A short measure of economic beliefs. Journal of Personality and Individual Differences, 6, 123-126.
- Glock, G.Y. & Piazza, T. (1978). Exploring reality structures. Society, 15, 60-65.
- Godin, A. (1975). The Charismatic experience. Archives des Sciences Sociales des Religions, 20, 31-52.

- Goldberg, C. (1975). Conformity⁹¹ to majority types as a function of task and acceptance of sex related stereotypes. Journal of Psychology, 89, 25-37.
- Gorsuch, R.L. & Smith, G.S. (1983). Attribution of responsibility to God: An interaction of religious beliefs and outcomes? Journal of the Scientific Study of Religion, 22, 340-352.
- Gray, B. & Valentine, J. (1984). Nuclear War: the attitudes of New Zealand secondary school children. New Zealand Family Physician, 27, 121-122.
- Greer, J.E. (1970). The attitudes of parents and pupils to religion in school. The Irish Journal of Education, 4, 39-46.
- Greer, J.E. (1981). Religious attitudes and thinking in Belfast pupils. Educational Research, 23, 117-189.
- Greer, J.E. (1984). Fifty years in the psychology of religion in religious education. British Journal of Religious Education, 17, 23-28.
- Gronblöm, G. & Thoragaard, J. (1981). The notion of functional equivalence with special regard to its use in the Psychology of Religion. Annual Review of Social Science Research, 5, 133-166.
- Gruner, L. (1984). Heroin, Hashish, or Hallelujah: The search for meaning. Review of Religious Research, 26, 176-186.
- Hadden, J.K. (1963). Analysis of some factors associated with religious and political affiliation in a college population. Journal for the Scientific Study of Religion, 2, 209-216.
- Hammond, P.E. (1981). The political meaning of evangelism. The Ann. Rev. of the Soc. Sci. of Religion, 5, 187-202.
- Hay, D. (1974). More rumours of angels. The Month, 7, 796-799.
- Hittz, J.T. (1975). Effects of religious study on interest in religion. Religious Education, 70, 416-427.
- Himmelfarb, H. (1975). Measuring religious involvement, Social Forces, 53, 606-617.
- Himmelfarb, H. (1979). Agents of religious socialization among American Jews. The Sociological Quarterly, 20, 477-494.

- Hilty, D.M. & Morgan, R. (1985). Construct Validation for the religious inventory: Replication. Journal of the Scientific Study of Religion, 24, 75-86.
- Hoge, D.R. & Zulueta, E. (1985). Saliance as a condition for various consequences of religious commitment. Journal of the Scientific Study of Religion, 24, 21-38.
- Homan, R. & Youngman, J. (1982). School and church as socializing agents. British Journal of Religious Education, 5, 22-27.
- Hornsby Smith, M.P., Lee, R.M. & Reilly, P.A. (1985). Common Religion. Review of Religious Research, 26, 244-252.
- Hynson, L.M. (1976). Religious belief and structure in America. Review of Religious Research, 17, 216-220.
- Jamieson, B.D. (1978). Scaling conservatism. New Zealand Psychologist, 7, 1-7.
- De Jong, G.F. & Faulkner, J.E. & Warland, R.H. (1976). Dimensions of religiosity, Social Forces, 54, 866-888.
- Kagan, J. (1984b, October). Lessons in bringing up baby. Time, p.97
- Kahoe, R.D. (1977). Religion and authoritarianism. Journal of the Scientific Study of Religion, 16, 179-183.
- Karabenick, S.A. (1983). Sex relevance of content and influencability: Sistrunch and McDavid revisited. Personality and Social Psychology Bulletin, 9, 243-252.
- Kenny, D. (1984, September). Anoid and Paranoid styles in nuclear politics. Peace Studies, pp.13-26.
- King, M.B. & Hunt, R.A. (1969). Measuring the religious variable. Journal of the Scientific Study of Religion, 8, 321-323.
- Levine, S.V. (1984, August). Radical departures, Psychology Today, pp22-27.
- McCulloch, A. (1-84). Threat of the bomb has students under psychological pressure. (1984, September 30). N.Z. Times, pp.5-6.
- Minney, R. (1985). Why are pupils bored in R.E.? British Journal of Educational Studies, 33, 250-261.
- Mol, H. (1967). Religion in New Zealand. Archives de Sociologie des Religions, 12, 121-133.

- Mueller, C.W. & Johnson, W.T. (1975). Socioeconomic Status and Religious participation. American Sociological Review, 40, 785-800.
- Ostling, R.N. (1985, September). Jerry Falwells Crusade. Time, pp.40-46.
- Peattie, L. (1984). Normalizing the unthinkable. Bulletin of the Atomic Scientists, pp.32-36.
- Perkins, H.W. (1985). Religiosity as opiate or phrophetic stimulant, Review of Religious Research, 26, 269-280.
- Pickens, K. (1975). Unpublished Degree and Diploma studies in Education. New Zealand Journal of Educational Studies, 10, 153-175
- Pickens, K. (1976a). Unpublished Degree and Diploma Studies in Education. New Zealand Journal of Educational Studies, 11, 72-98
- Pickens, K. (1976b). Unpublished Degree and Diploma Studies in Education. New Zealand Journal of Educational Studies, 11, 191-217
- Richardson, J.T. & Stuart, M.W. & Simmonds, R.B. (1978). Conversion to fundamentalism, Society, 15, 46-52.
- Ritzema, R.J. (1979). Attributions to supernatural causation: An important component of religious commitment? Journal of Psychology and Theology, 7, 286-293.
- Robinson, E. (1976). Experience and autonomy in religious education. Religious Education, 71, 451-572.
- Roof, W.C. & Hadaway, C.K. (1977). Review of the polls. Shifts in religious preference. Journal of the Scientific Study of Religion, 16, 409-412.
- Salholz, & Taylor, (1982, October). Kids with nuclear jitters. Newsweeks, pp.117-118.
- Salisbury, W.S. (1970). Religious identity and religious behaviour of the sons and daughters of religious intermarriage. Review of Religious Research, 2, 128-135.
- Schroeder, W.W. (1977). Survey methods in the psychology of religion, Review of Religious Research, 18, 148-162.

- Sidanius, J. (1984). Political interest, political information search, and ideological homogeneity as a function of sociopolitical ideology: A tale of three theories. Human Relations, 37, 811-828.
- Sistrunck, K. & McDavid, J.W. (1971). The sex variable in conforming behaviour. Journal of Personality and Social Psychology, 17, 200-207.
- Synder, M. & Swann, W.B. (1976). Impression management. Journal of Personality and Social Psych, 34, 1034-1042.
- Spilka, B., Stout, L., Minton, B. & Sizemore, D. (1970). Death and personal faith. Journal of Science Study Religion, 16, 169-178.
- Spilka, B., Shaver, P. & Kirkpatrick, L.A. (1985). A general attribution theory for the psychology of religion. Journal of the scientific study of Religion, 24, 1-118.
- Tamney, J.B. & Johnson, S.D. (1985). Consequential religiosity in modern society. Review of Religious Research, 26, 360-376.
- Thomas, D.L. & Weigert, A.J. (1971). Socialization and adolescent conformity to significant others: a cross-national analysis. American Sociological Review, 36, 835-847.
- Turner, I.F. & Davies, J. (1982). Religious attitudes in and integrated primary school: A Northern Ireland case study. British Journal of Religious Education, 5, 28-32.
- Weigert, A.J. & Thomas, D.L. (1970). Socialization and Religiosity: A cross-national analysis of Catholic adolescents. Sociometry, 33, 305-328.
- Weigert, A.J. & Thomas, D.L. (1972). Parental support, control, and adolescent religiosity: An extension of previous research. Journal of the Scientific Study of Religion, 11, 389-393.
- Weigert, A.J. & Thomas, D.L. (1974). Secularization and religiosity: A cross-national study of Catholic adolescents in five countries. Sociological Analysis, 35, 1-23.
- Yudkim, M. (1984, April). Young Activists, Psychology Today, pp.21-25.
- Zweigenhaft, R. (1985, February). Students surveyed about nuclear war. Bull. of Atomic Scientists, pp.26-27.

BOOKS

- Allport, G. (1950). The individual and his religion. New York: MacMillan.
- Almond, P. (1980). Mystical experiences and their limiting case. In V.C. Hayes, (Ed.), Religious experiences in world religions. (No.3 in A.A.S.R. series), (pp.103-111). Australia: A.A.S.R. Publishing.
- America, (1969). Catholic teenagers debate adult critics. In A. Klein, (Ed.), Natural enemies? Youth and the clash of generations, (pp. 75-87) United States: J.B. Lippencott.
- Batson, C.D. & Ventis, W.L. (1982). The religious experience: A social psychological perspective. New York: Oxford University Press.
- Beit-Hallahmi, B. (1977). Psychology of religion 1880-1930: the rise and fall of a psychological movement. In H. Newton Maloney (Ed.), Current perspectives in the psychology of religion (pp.17-26). U.S.A.: William B. Eerdmans.
- Bikel, T. (1969). Jewish campus youth. In A. Klein (Ed.), The clash of generations, U.S.: J.B. Lippencott.
- Blaikie, N.H. (1978). Religious groups and world views. In F.J. Hunt (Ed.), Socialization in Australia, Aust: Australian Press and Pub.
- Charlesworth, M. (1980). On the value of religious experience. In V.C. Hayes (Ed.), Religious experiences in world religions (No.3 in A.A.S.R. series), (pp. 16-24) Australia: A.A.S.R. Publications.
- Codd, J.A. & Burridge, G.J. (1976). A hostel environment in a boys boarding school: Educational implications. In R.A.C. Stewart (Ed.), Adolescence in New Zealand: A book of readings: Vol.1 (pp. 24-31). New Zealand: Heinman Books.
- Donnelly, F.C. (1976). The problems of New Zealand adolescents: the work of youthline. In R.A.C. Stewart (Ed.), Adolescence in New Zealand: A book of readings: Vol.7 (pp. 101-106). New Zealand: Heinmann Books.
- Donnelly, F.C. (1979). Candles in the wind. Auckland: Cassell New Zealand.
- Douglass, W. (1966). Religion. In N.L. Farberow (Ed.), Taboo topics, (pp.80-95). New York: Atherton Press.
- Durkheim, E. (1951). Suicide. New York: The Free Press.

- Fowler, J.W. (1981). Stages of Faith: The psychology of human development and the quest for meaning. San Francisco: Harper and Row.
- Glock, C.Y. (1959). The religious revival in America? In J. Zahn (Ed.), Religion and the face of America (pp.25-42). C.A.: Berkeley.
- Greely, A.M. (1972). The denominational society. I...: Scott Foresman.
- Hall, G.S. (1905). Adolescence - its psychology and its relation to physiology, sociology, sex, crime, religion and education (Vol.2). New York: D. Appelton.
- Hill, C.G.N. (1976). Teacher trainees and authoritarian attitudes. In R.A.C. Stewart (Ed.), Adolescence in New Zealand: A book of readings: Vol.2 (pp. 65-69) New Zealand: Heinman Books.
- Hyde, K.E. (1965). Religious learning in adolescence. (University of Birmingham Institute of Educational Monographs No.7). England: Oliver and Boyd.
- Kett, J.F. (1977). Rites of Passage in America: 1790 to the Present. New York: Basic Books.
- Kupky, O. (1928). The religious development of adolescents. New York: MacMillan.
- Lawrence, P.J. (1965). Children's thinking about religion: A study of concrete operational thinking. In L.B. Brown (Ed.), Psychology and Religion (pp.111-116). England: Penguin Education.
- Leuba, J.H. (1916). The belief in God and immortality. Boston: Sherman, French and Company.
- Mol, H. (1971). Religion in Australia. Australia: Nelson.
- Mol, H. (1984). The fixed and the fickle, religion and identity in New Zealand. New Zealand: Pilgrims South Press.
- Muggeridge, M. (1973). Christ and the Media. Britain: Hodder and Stoughton.
- New Zealand Official Year Book. (1984). Wellington: Department of Statistics.
- Pafford, M. (1973). Inglorious wordworths - A study of some transcendental experiences of childhood and adolescence. London: Hodder & Stoughton.

- Ringgren, H. & Ström, A.V. (1967). Religions of mankind: Today and yesterday. (trans. N.L. Jensen), England: Oliver and Boyd.
- Report on the New Zealand Youth Forum. (1964). Wellington: Government Printer.
- Ritchie, J. & Ritchie, J. (1984). Surviving adolescence in New Zealand: the dangerous age. New Zealand: Allen & Unwin Port Nicholson Press.
- Selbie, W.B. (1924). The psychology of religion. Oxford: Clarendon.
- Small, J.J. (1976). A survey of adolescent behaviour. In R.A.C. Stewart (Ed.), Adolescence in New Zealand: a book of readings: Vol.1 (pp. 91-93), New Zealand: Heinman Books.
- Smart, N. & Horder, D. (Eds.), (1975). New movements in religious education. London: Temple Smith.
- Starbuck, E.D. (1908). The psychology of religion. New York: Charles Scribner and Sons.
- Thouless, R. (1924). An introduction to the psychology of religion, (2nd ed.). Cambridge: Cambridge University Press.
- Union List of theses at New Zealand Universities (1975). Wellington: N.Z. Library Association.
- Waternik, A.G. (1977). Views of man and psychology. Ontario: Institute for Christian Studies.
- Webster, A.C. (1976). Dimensions of adolescent personality in New Zealand. In R.A.C. Stewart (Ed.), Adolescence in New Zealand: A book of readings: Vol.1 (pp. 94-98). New Zealand. Heinman Books.
- Woodworth, R.S. (1951). Contemporary Schools of psychology. London: Methuen.
- Woolford, G. & Law, M. (1980). Youth in perspective, a study of youth services in New Zealand. New Zealand: Well, Wright and Carren.

RESEARCH REPORTS

- Gallup Poll. (1969). Religious beliefs and behaviours in Australia.

DOCTORAL DISSERTATIONS AND MASTERS THESES

- Anderson, D.M. (1970). Christchurch Youth Groups. Unpublished Master's Thesis, University of Canterbury, Christchurch.

- Atkins, E.A. (1984). The effects of integration in New Zealand's Roman Catholic Schools. Unpublished Master's Thesis, Massey University, Palmerston North.
- Barlow, G.W. (1963). Value levels among adolescents in a New Zealand environment. Unpublished diploma dissertation, Auckland University: Auckland.
- Boyle, T. (1974). The influence of friendship upon religious choice. Unpublished Master's Thesis, Victoria University, Wellington.
- Button, G.J. (1971). The religious beliefs of some New Zealand sixth formers. Unpublished diploma dissertation, Massey University, Palmerston North.
- Cummock, M.J. (1945). Development of children's thoughts about God. Unpublished diploma dissertation, University of Canterbury, Christchurch.
- David, S.M. (1964). A study of moral beliefs of a group of adolescents in a Dunedin church-based Sunday school. Unpublished diploma, Otago University, Dunedin.
- Darwick, P.F. (1968). Attitudes of sixth formers towards God and religion. Unpublished diploma dissertation, University of Auckland, Auckland.
- Donnelly, F. (1963). Religious instruction in Auckland Catholic Secondary Schools. Unpublished master's thesis, University of Auckland, Auckland.
- Dowling, F. (1972). An assessment of education in the Marist Brothers Schools in New Zealand. Unpublished diploma dissertation, Massey University, Palmerston North.
- Garwood, J.L. (1974). Why change thy way: A study of some factors contributing to religious attitude change among adolescents. Unpublished master's thesis, Auckland University, Auckland.
- Howlitt, C.R. (1969). An investigation of moral responses of rural and urban primary school children. Unpublished diploma dissertation, Massey University, Palmerston North.
- Johnson, P.C. (1966). The religious attitudes of secondary modern country school pupils. Unpublished master's thesis, University of Manchester, Manchester.
- Loft, J.B. (1974). The variation in Catholic belief and practice from the third to fifth and seventh forms in four Catholic Colleges in New Zealand. Unpublished diploma dissertation, Massey University, Palmerston North.

- McMillan, B.W. (1968). Children's understanding of Christian terms. Unpublished master's thesis, Otago University, Dunedin.
- Mead, A.W. (1969). Children's concept of God: A study of conceptual thinking among eighty Auckland children aged eight and twelve years. Unpublished master's thesis, Auckland University, Auckland.
- Moir, K.F. (1968). The Crusader Movement in the secondary schools of New Zealand. Unpublished diploma dissertation, Auckland University, Auckland.
- Nalder, T.W. (1974). Transcending experiences. Unpublished master's thesis, University of Otago, Dunedin.
- Patterson, W.H. (1969). The out of school activities of some intermediate children. Unpublished master's thesis, Auckland University, Auckland.
- Poval, C.H. (1971). Attitudes to religious education. Unpublished master's dissertation. University of Manchester, England.
- Seager, R. (1975). Leisure and Young People. Unpublished master's thesis, Canterbury University, Christchurch.
- Wildbore, A.C. (1967). An investigation into some aspects of the development of children's thinking about religion. Unpublished master's thesis, Canterbury University, Christchurch.

PROCEEDINGS OF MEETINGS AND SYMPOSIA

- Brown, C. (1982). Religion in N.Z. In K.J. Sharpe (Ed.), Religion and New Zealand's future (pp.15-22), Auckland: Auckland University.
- Hill, M. (1982). The social context of New Zealand religion. "Straight" or "narrow"? In K.J. Sharpe (Ed.), Proceedings of the Seventh Auckland Religious Studies Colloquium (pp. 23-46). Auckland: Auckland University Press.
- Sharpe, K.J. (Ed.), (1982). Proceedings of the Seventh Auckland Religious Studies Colloquium. Auckland: Auckland University Press.

Stuart, W.J. (1982). Secularization and Sectarianism: The Struggle for a Religious Future in New Zealand. In K.J.Sharpe (Ed.), Proceedings of the Seventh Auckland Religious Studies Colloquium (pp. 84-92). Auckland: Auckland University Press.

UNPUBLISHED MANUSCRIPTS AND PUBLICATIONS OF LIMITED CIRCULATION

Churches, T. (1984). The threat of nuclear war - what is it doing to our heads? Unpublished research report for People for Nuclear Disarmament.

Evans, A. (1984). Psychological Aspects of Nuclear Confrontation. Unpublished research report for I.P.P.N.W. (Inc.).

Glock, C.Y. (1954). Towards a typology of religious orientation. Unpublished research report.

Holm, N. (1985). The transmission of religion in family situations in Finland: Unpublished research report.

McSweeney, K. (1984). A study of children's views on nuclear issues. Unpublished research paper.

Shallcrass, J. & Gavriel, V. (1976). Images of the year 2000. Unpublished research report.

APPENDIX 1

NUMBER OF THIRD, FOURTH AND FIFTH FORMERS

IN THE CHRISTCHURCH METROPOLITAN AREA

ON JULY 1 1985

<u>School-type</u>	<u>Population</u>	<u>No.of Schools</u>	<u>Number of Pupils</u>	<u>Percentage of total</u>
State	Mixed	10	9094	56.66
Catholic	Single Sex	6	1884	11.74
Presbyterian	"	2	929	5.79
Anglican	"	2	658	4.11
Inter- denominational	Mixed	1	248	1.55
7th Day Adventist	"	1	55	.0034
A.C.E.*	"	1	44	.0027
Total			<u>16047</u>	

* Accelerated Christian Education

Source: 1 July return from Christchurch Secondary
Schools, Department of Education Statistics
Office, 1985.

APPENDIX 2

CONSTRUCTION AND BACKGROUND OF THE SYMBOLIC RITUAL SECTION.

This section asks respondents about involvement in symbolic rituals concerning food, prayer, religious ornaments and objects, lighting candles, and Communion or Eucharistic services. The appendix introduces each item and its background in the ritual practices of world religions.

Question 1. Do religious beliefs affect what you eat ?

Option 1. I do not eat some types of food at all for religious reasons.

Many religions contain prohibitions on certain foods. The canonical writings of Jews and Moslems contain extensive lists of forbidden foods. Hindus also adhere to strict rules regarding food: they are not allowed to eat beef, and many Hindus do not eat meat at all. Many Buddhists are also vegetarian. Food laws containing permanent prohibitions are rare in Christian traditions and only a few groups, such as the Seventh Day Adventists, still hold to such rules (theirs are based on Jewish food law from the Old Testament).

Option 2. I do not eat some types of food on particular religious days or festivals.

The Catholic tradition in New Zealand was that the

Fridays of the month leading up to Easter were "days of abstinence" (when no meat was eaten). Ash Wednesday and Good Friday are now (officially) the only such days in the Catholic calendar, although many Catholic families still keep Fridays or at least the Fridays of Lent as days of abstinence. Many Catholic school pupils are encouraged by their Religious Education teachers to keep the Fridays of Lent as days of penance and to refrain from eating some type of food. Among Jews temporary ritual abstinence takes the form of a rubric against having any type of yeast in the house for a certain period leading up to the celebration of Passover. Hindus may abstain from eating meat (if they normally do so) while preparing for important religious occasions and ceremonies.

Option 3. Sometimes I do not eat at all for religious reasons.

A major fast among Jews and Moslems involves a total ban on eating and drinking for a prescribed period. Within contemporary Christianity fasting is usually less arduous and less of a corporate practice. Within the Catholic church fasting is usually synonymous with abstinence and means a reduction in amount of food eaten rather than cessation of eating. In some Charismatic and Pentecostal churches there are sometimes days of fasting from food and sometimes from drinking as well.

The questions on eating behaviour were expected to mainly apply to Catholic subjects. It was also of

interest to see if any of the subjects from other denominations were participating in these behaviours and how they compared with the Catholic subjects.

Question 2. While praying or worshipping do you do any of the following ?

The twelve behaviours listed in the questionnaire involve ritual prayer behaviours from most major religions. These included practices common to Catholics (bending one knee, crossing oneself), Charismatics and Pentecostals (raising one's hands), Hindu and Moslem (lying down, praying towards a certain place or direction, bowing at the waist), and also behaviours common to many religions (closing eyes, lifting or bowing the head, clasping hands, kneeling, and observing silence).

Question 3. Do you wear or have any religious objects or ornaments ?

Nearly all religions have objects that they use to represent religious sentiments or symbolism. These vary from the St. Christopher medals, worn by some Christians to ensure safe travel, to the religious pictures Hindus believe to be imbued with divinity. Again it was believed that this item would be most applicable to the Catholics in the sample.

Question 4. Do you light candles or incense at home for religious reasons or for particular religious reasons ?

It is the practice of Orthodox Jews to light candles

on Sabbath Eve (Friday night). Hindus use camphor lamps and incense for their worship services. Buddhists and Taoists also use incense for these purposes.

Question 5. How often do you receive Communion or the Eucharist (or attend Passover Service, Food Offering Service, etc.)?

Both Protestant and Catholic terms for this ritual were included. Also, the Jewish rite of Passover and the Hindu rite of the Food Offering Service were mentioned to increase the applicability of the section to other religions.

APPENDIX 3

THE SECOND PRELIMINARY QUESTIONNAIRE USED IN PILOT STUDIES

Canterbury University Psychology Department

Belief And Outlook Questionnaire

This questionnaire is part of a research project investigating the beliefs and outlook of teenagers concerning three important areas of life:(1)How you see the world around you,(2)Hopes and fears about the future,and(3)Beliefs about religion.

Many people are making statements about these things that are not really based on good evidence.This project is designed to collect information that will be helpful in studying people and the changes that occur in their thinking as they get older.

All the information you give in this questionnaire is confidential. No one will know which questionnaire is yours.Please do not write your name on the questionnaire.

(1)PLEASE TICK THE APPROPRIATE BOXES TO GIVE THE FOLLOWING INFORMATION.

How old are you? 13 ☐ 14 ☐ 15 ☐ 16 ☐

Female ☐ Male ☐

(2)LISTED BELOW ARE SOME ITEMS THAT ARE EXPECTED TO CHANGE OVER THE NEXT 10 TO 20 YEARS.
WHICH OF THESE ITEMS DO YOU THINK ARE GOING TO CHANGE FOR THE BETTER ?
PLEASE GO THROUGH THE ITEMS AND TICK THE BOXES NEXT TO THE ONES THAT YOU THINK ARE GOING TO CHANGE FOR THE BETTER IN THE NEXT 10 TO 20 YEARS.

(a)The standard of living of New Zealanders.....☐

(b)Diplomatic relationsbetween America and the Soviet Union.....☐

(c)The New Zealand economy.....☐

(d)Safety measures of nuclear power plants.....☐

(e)The standard of living of the world's poor people.....☐

(f)Diplomatic relations between all the countries of the world...☐

(g)The world economy.....☐

(h)None of these.....☐

(3)IN THE FUTURE,DO YOU BELIEVE THE SCIENTIFIC ADVANCES BEING MADE WILL HELP OR HARM HUMANITY?

TICK ONE BOX BELOW:

(a)Will harm humanity.....☐

(b)Will help humanity.....☐

QUESTION (3) CONTINUED.

(c) Not sure.....☐

(d) Do not know.....☐

LISTED BELOW ARE SOME ITEMS THAT SOME SAY ARE THREATS TO OUR FUTURE.

PLEASE GO THROUGH ALL THE ITEMS BELOW AND TICK ONE OF THE THREE OPTIONS(YES , ? , AND, NO) FOR EACH ONE, TO SHOW IF YOU ARE GENUINELY WORRIED ABOUT IT OR NOT.

Example;

(1) That N.Z. will never be able to pay back it's debts.....Yes ☐ ? ☐ No ☐

IF YOU ARE GENUINELY WORRIED THAT N.Z. WILL NEVER BE ABLE TO PAY BACK ITS DEBTS

TICK THE YES

Example;

(1) That N.Z. will never be able to pay back its debts.....Yes ☐ ? ☐ No ☐

IF YOU ARE UNSURE WHETHER YOU ARE GENUINELY WORRIED OR NOT THAT N.Z. WILL BE ABLE TO PAY BACK IT'S DEBTS TICK THE ?

Example;

(1) That N.Z. will never be able to pay back it's debts.....Yes ☐ ? ☐ No ☐

IF YOU ARE NOT GENUINELY WORRIED THAT N.Z. WILL NOT BE ABLE TO PAY BACK IT'S DEBTS TICK THE NO

Example;

(1) That N.Z. will never be able to pay back it's debts.....Yes ☐ ? ☐ No ☒

(2) That violent crime will increase in N.Z.....Yes ☐ ? ☐ No ☐

(3) That a nuclear war will occur in my lifetime..Yes ☐ ? ☐ No ☐

(4) That there will be mass unemployment because of the automation of jobs by machines.....Yes ☐ ? ☐ No ☐

(5) That the destruction of much of the Earth's plant and animal life through pollution will occur.....Yes ☐ ? ☐ No ☐

(6) That there will be a severe fuel crisis....Yes ☐ ? ☐ No ☐

(7) That the whole world (including N.Z.) will be ruled by unjust dictatorships.....Yes ☐ ? ☐ No ☐

(8) That there will be mass unemployment because of a nationwide depression.....Yes ☐ ? ☐ No ☐

(9) That there will be a rise in tensions between different groups in N.Z. society.....Yes ☐ ? ☐ No ☐

(10) That starvation will increase in the world.....Yes ☐ ? ☐ No ☐

(11) That terrorism will increase in the world.....Yes ☐ ? ☐ No ☐

(12) That disease will increase in the world.....Yes ☐ ? ☐ No ☐

PLEASE GO THROUGH ALL THE ITEMS BELOW AND TICK ONE OF THE THREE OPTIONS FOR EACH ONE, TO INDICATE WHAT YOUR ATTITUDE TO EACH ONE IS.

Example;

(1) "Democracy".....Yes ☐ ? ☐ No ☐
If you have a positive attitude to Democracy, tick the.....Yes

(1) "Democracy".....Yes ☒ ? ☐ No ☐

IF YOU ARE NOT SURE WHAT YOUR ATTITUDE TO
DEMOCRACY IS, TICK THE

(1) "Democracy".....Yes ☐ ? ☒ No ☐

IF YOU HAVE A NEGATIVE ATTITUDE TO DEMOCRACY
TICK THE.....No

(1) "Democracy".....Yes ☐ ? ☐ No ☒

(2) Strikes for higher
wages.....Yes ☐ ? ☐ No ☐

(3) Bible classes in state
schools.....Yes ☐ ? ☐ No ☐

(4) Capital punishment (the death
sentence)for murder....Yes ☐ ? ☐ No ☐

(5) Communism.....Yes ☐ ? ☐ No ☐

(6) Church is the foundation
of society.....Yes ☐ ? ☐ No ☐

(7) The Government of the
United States.....Yes ☐ ? ☐ No ☐

(8) The unemployment
benefit.....Yes ☐ ? ☐ No ☐

(9) Capitalism.....Yes ☐ ? ☐ No ☐

(10) The Government of the
Soviet Union.....Yes ☐ ? ☐ No ☐

(11) Harder measures against
violent criminals.....Yes ☐ ? ☐ No ☐

(12) Nuclear weapons act as a
deterrent against nuclear
war.....Yes ☐ ? ☐ No ☐

(13) The Government of the Peoples
Republic of China.....Yes ☐ ? ☐ No ☐

(14) Trade Unions.....Yes ☐ ? ☐ No ☐

(15) The E.E.C. (The European
Economic Community..Yes ☐ ? ☐ No ☐

(16) Socialism.....Yes ☐ ? ☐ No ☐

PLEASE GIVE THE FOLLOWING INFORMATION
BY TICKING THE APPROPRIATE BOXES.

(1) To what extent do you think your
life is influenced by your parent/s
(or guardian/s)?

Determine(s) my life almost
entirely.....☐

Have a strong influence.....☐

Are important at times.....☐

Have some small influence.....☐

Have no influence at all.....☐

(2) To what extent do you think your
life is influenced by the Govern-
-ment?

Determines my life almost
entirely.....☐

Has a strong influence.....☐

Is important at times.....☐

Has a small influence.....☐

Has no influence at all.....☐

(3) a Do you believe in luck?

Yes.....☐

No.....☐

Not sure.....☐

(3)b Would you say how much influence luck has had on your life?

Determines my life almost entirely.....☐

Has a strong influence....☐

Is important at times.....☐

Has a small influence.....☐

Has no influence at all....☐

(4) Do you believe in God or a powerful spiritual force?

Yes.....☐

No.....☐

Not sure.....☐

(4)b Would you say how much influence God or a powerful spiritual force has on your life?

Determines my life almost entirely.....☐

Has a strong influence....☐

Is important at times.....☐

Has no influence at all....☐

(5)a Do you have any brothers or sisters?
(or any step brothers or step sisters)

Yes.....☐

No.....☐

(5)b Would you say how much influence your brothers and/or sisters have on your life?

Question (5)b continued...

Determine my life almost entirely.....☐

Have a strong influence..☐

Are important at times..☐

Have a small influence..☐

Have no influence at all..☐

(6)To what extent do you think your life is influenced by your own choices and abilities?

Determines my life almost entirely.....☐

Have a strong influence..☐

Are important at times..☐

Have a small influence..☐

Have no influence at all..☐

(7)To what extent do you think your life is influenced by heredity?

Determines my life almost entirely.....☐

Has a strong influence..☐

Is important at times..☐

Has a small influence....☐

Has no influence at all..☐

Section (D)

PLEASE TICK THE APPROPRIATE BOX TO INDICATE
YOUR ANSWER TO EACH QUESTION.

(1) Do you believe in life after death?

Yes.....☐

No.....☐

Not sure.....☐

(2) Do you believe in heaven?

Yes.....☐

No.....☐

Not sure.....☐

(3) Do you believe in hell?

Yes.....☐

No.....☐

Not sure.....☐

PLEASE TICK THE APPROPRIATE BOX TO INDICATE
YOUR OPINION ABOUT EACH OF THE THREE
STATEMENTS MADE BELOW.

(4) "Jesus is the Son of God"

I strongly agree.....☐

I agree.....☐

I am not sure.....☐

I disagree.....☐

I strongly disagree.....☐

(5) "The Bible is the inspired word
of God".

I strongly agree.....☐

I agree.....☐

I am not sure.....☐

I disagree.....☐

I strongly disagree.....☐

(6) "God created the world".

I strongly agree.....☐

I agree.....☐

I am not sure.....☐

I disagree.....☐

I strongly disagree.....☐

SECTION (MY)

PLEASE GIVE THE FOLLOWING INFORMATION
BY TICKING THE APPROPRIATE BOX FOR
EACH QUESTION.

(1) How often, if ever, have you been
aware of, or influenced by, a
presence or power of god, or
something else?

Pretty regularly.....☐

Often.....☐

Several times.....☐

Now and again.....☐

Only a very few times.....☐

Once or twice.....☐

Never.....☐

Unsure.....☐

(2)How often,if ever,do you pray by yourself?

Every day.....
3 or 4 times a week.....
Once a week.....
2 or 3 times a month.....
Once a month.....
Less than once a month.....
Less than once a year.....
Never.....

(3)How often,if ever,have you found praying
by yourself satisfying?

All the time.....
Often.....
Several times.....
Once or twice.....
Never.....

(5)How often,if ever,do you read the Bible
by yourself?

Every day.....
3 or 4 times a week.....
Once a week.....
2 or 3 times a month.....
Once a month.....
Less than once a month.....
Less than once a year.....
Never.....

(6)Independently of whether you belong
to a church,mosque or synagogue,(or
other place of worship)would you say
you were.....

Very religious.....☐
Religious.....☐
Unsure about religion.....☐
Indifferent to religion.....☐
Mildly critical of religion....☐
Very antagonistic to religion..☐

(7)

PLEASE TICK THE APPROPRIATE BOX TO SHOW
YOUR REACTION TO THIS STATEMENT.

"My religious beliefs are what really
lie behind my whole approach to life"

I strongly agree.....☐
I agree.....☐
I am unsure.....☐
I disagree.....☐
I strongly disagree.....☐

(R) SECTION

PLEASE TICK THE APPROPRIATE BOX TO
ANSWER EACH OF THESE QUESTIONS.

(1)Please tick the options that apply to
you as concerns religious traditions
and eating.

(TICK AS MANY AS APPLY)

I do not eat some types of food at all
all for religious reasons.....☐

I do not eat some types of food on
particular religious days or
festivals.....☐

Sometimes I do not eat at all for
religious reasons.....☐

Religious considerations do
not have any affect on what
I eat.....

(2)While doing any of the following;

- praying
- worshiping
- facing a religious object
- facing a religious place

Do you do any of the behaviours
listed below?

PLEASE TICK AS MANY AS APPLY

- Close your eyes.....
- Lift up your head.....
- Bow your head.....
- Raise your hands.....
- Clasp your hands together.....
- Cross yourself.....
- Kneel down.....
- Bend one knee.....
- Lie down.....
- Observe silence.....
- Pray towards a certain
place or direction.....
- Bow at the waist
- Stand up.....
- None of these apply to me.....

(3) Do you wear or possess any religious
objects or ornaments?(such as a cross,
star of David, or religious pictures,
plaques or statues?)

Yes.....

No.....

(4)Do you light candles for religious
reasons , or for particular religious
traditions?

Yes.....

No.....

(5)How often do you receive communion,
or the eucharist?

More than once a week.....

Once a week.....

2 or 3 times a month.....

Once a month.....

Twice a year.....

Once a year.....

Less than once a year.....

Never.....

SECTION (M)

LISTED BELOW ARE TEN RELIGIOUS COMMANDMENTS. USING THE HEADINGS BELOW ;

(1APPLIES FULLY/ 2APPLIES TO A LIMITED EXTENT/ 3DOES NOT APPLY/ 4DO NOT KNOW)

PLEASE INDICATE HOW MUCH YOU FEEL EACH COMMANDMENT APPLIES TO

PLEASE TICK ONE NUMBER FOR EACH STATEMENT.

	Applies Fully	Applies to a limited extent	Does not apply	Do not know
(a) I am the Lord your God, worship no God but me....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(b) Do not use the name of the Lord your God for evil purposes.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(c)Observe the Sabbath and keep it holy (Sunday).....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(d)Respect your Father and Mother.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(e)Do not commit murder.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(f)Do not commit adultery....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(g)Do not steal.....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(h)Do not accuse anyone falsely	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(i)Do not desire another persons spouse(husband or wife)...	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
(j)Do not desire another person's Goods (or possessions)....	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

Are you a member of any of the churches listed below?

PLEASE TICK THE APPROPRIATE BOX.

Mormon(Lattrr day saints).....	<input type="checkbox"/>
Adventist.....	<input type="checkbox"/>
Pentecostal.....	<input type="checkbox"/>
Anglican.....	<input type="checkbox"/>
Presbyterian.....	<input type="checkbox"/>
Baptist.....	<input type="checkbox"/>
Roman catholic.....	<input type="checkbox"/>
Bretheren.....	<input type="checkbox"/>
Salvation Army.....	<input type="checkbox"/>
Lutheran.....	<input type="checkbox"/>
A Christian denomination not listed(please write what it is)	<input type="checkbox"/>
Methodist.....	<input type="checkbox"/>
Another Religion(please write what it is)	<input type="checkbox"/>
None of these.....	<input type="checkbox"/>

APPENDIX 4 FINAL QUESTIONNAIRE

UNIVERSITY OF CANTERBURY
DEPARTMENT OF PSYCHOLOGY

This questionnaire is part of a research project looking at teenagers' beliefs about religion and also the world around them.

It is completely private. All the information you give is confidential so no-one will know which questionnaire is yours.

Please do not write your name on the questionnaire.
Thank you for your cooperation.

SECTION ONE

Please tick the appropriate boxes to give the following information.

How old are you? 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16 ☐

Female ☐ Male ☐ Form: 3rd ☐ 4th ☐ 5th ☐

(1) Listed below are 14 things that could happen in the future.

*Tick the YES next to the item if you believe it will happen.

*Tick the ? next to the item if you are unsure whether it will happen or not.

*Tick the NO next to the item if you do not believe it will happen.

TICK ONE OF THE THREE OPTIONS
(YES, ?, NO) FOR EACH OF THE STATEMENTS

- 1 Do you believe that the standard of living of New Zealanders will get better by 1990? YES ☐ ? ☐ NO ☐
- 2 Do you believe that violent crime will increase in New Zealand by 1990? YES ☐ ? ☐ NO ☐
- 3 Do you believe that the Governments of America and the Soviet Union will be friendlier in the future? YES ☐ ? ☐ NO ☐
- 4 Do you believe that nuclear war will occur in your lifetime? YES ☐ ? ☐ NO ☐
- 5 Do you believe that the New Zealand economy will get better by 1990? YES ☐ ? ☐ NO ☐

- 14 Corporal punishment (the strap, cane etc.)
in Secondary Schools

YES ☐ ? ☐ NO ☐

- (2) Please tick one of the boxes on the left/right scale below to show what your political beliefs are.

TICK ONE BOX BELOW

1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extremely Left Wing			Middle		Extremely Right Wing	

SECTION 3

Please answer the following questions by ticking the appropriate boxes.

TICK ONE BOX FOR EACH QUESTION

- (1) Would you want to be a survivor of a nuclear war?

YES ☐ NOT SURE ☐ NO ☐ DO NOT KNOW ☐

- (2) Do you believe that nuclear war is prophesied in the Bible as insisted by some prominent churchmen?

YES ☐ NOT SURE ☐ NO ☐ DO NOT KNOW ☐

- (3) Do you believe nuclear weapons could destroy everything christians have built over the centuries?

YES ☐ NOT SURE ☐ NO ☐ DO NOT KNOW ☐

- (4) Do you believe it is right for a person to make a career in a job manufacturing nuclear weapons?

YES ☐ NOT SURE ☐ NO ☐ DO NOT KNOW ☐

- (5) Do you believe that nuclear warfare means the death of the human race?

YES ☐ NOT SURE ☐ NO ☐ DO NOT KNOW ☐

SECTION 4

Please give the following information by ticking the appropriate boxes.

TICK ONLY ONE BOX FOR EVERY QUESTION

- (1) How much do you think your life is influenced by your Parent/s (or Guardian/s)?

Determines my life almost entirely ☐
 Have a strong influence ☐
 Have a moderate influence ☐
 Have a small influence ☐
 Have no influence at all ☐

- (2) How much do you think your life is influenced by the Government?

Determines my life almost entirely ☐
 Has a strong influence ☐
 Has a moderate influence ☐
 Has a small influence ☐
 Has no influence at all ☐

- (3a) Do you believe in luck? YES ☐ NO ☐ NOT SURE ☐

- (3b) How much do you think your life is influenced by luck?

Determines my life almost entirely ☐
 Has a strong influence ☐
 Has a moderate influence ☐
 Has a small influence ☐
 Has no influence at all ☐

(4a) Do you believe in God? YES ☐ NO ☐ NOT SURE ☐

(4b) How much do you think your life is influenced by God?

Determines my life almost entirely ☐

Has a strong influence ☐

Has a moderate influence ☐

Has a small influence ☐

Has no influence at all ☐

(5) How much do you think your life is influenced by your brother(s), and/or sister(s)?

Determines my life almost entirely ☐

Have a strong influence ☐

Have a moderate influence ☐

Have a small influence ☐

Have no influence at all ☐

(6) How much do you think your life is influenced by your own choices and abilities?

Determines my life almost entirely ☐

Have a strong influence ☐

Have a moderate influence ☐

Have a small influence ☐

Have no influence at all ☐

(7) How much do you think your life is influenced by your school?

Determines my life almost entirely ☐

Has a strong influence ☐

Has a moderate influence ☐

Has a small influence ☐

Has no influence at all ☐

SECTION 5

Please tick the appropriate boxes to indicate your answer to each question.

TICK ONE BOX FOR EACH QUESTION

(1) Do you believe in life after death?

YES ☐ NO ☐ NOT SURE ☐ DO NOT KNOW ☐

(2) Do you believe in Heaven?

YES ☐ NO ☐ NOT SURE ☐ DO NOT KNOW ☐

(3) Do you believe in Hell?

YES ☐ NO ☐ NOT SURE ☐ DO NOT KNOW ☐

(4) Do you believe that Jesus walked on water?

YES ☐ NO ☐ NOT SURE ☐ DO NOT KNOW ☐

Please tick the appropriate box to show your opinion about each of the statements made below.

TICK ONE BOX FOR EACH QUESTION

(5) "Jesus Christ is the Son of God".

I strongly agree ☐
 I agree ☐
 I am not sure ☐
 I do not know ☐
 I disagree ☐
 I strongly disagree ☐

(6) "The Bible is inspired by God."

- I strongly agree ☐
- I agree ☐
- I am not sure ☐
- I do not know ☐
- I disagree ☐
- I strongly disagree ☐

(7) "God created the world."

- I strongly agree ☐
- I agree ☐
- I am not sure ☐
- I do not know ☐
- I disagree ☐
- I strongly disagree ☐

SECTION 6

Please give the following information by ticking the appropriate boxes.

TICK ONE BOX FOR EACH QUESTION

(1) How often, if ever, have you been aware of the presence of God or of something else spiritual?

- Pretty regularly ☐
- Often ☐
- Several times ☐
- Now and again ☐
- Only a few times ☐
- Once or twice ☐
- Never ☐
- Unsure ☐

- (2) How close do you feel to God or to something else spiritual?

Very close	<input type="checkbox"/>
Reasonably close	<input type="checkbox"/>
Not very close	<input type="checkbox"/>
Not close at all	<input type="checkbox"/>
I am unsure	<input type="checkbox"/>

- (3) How often do you think about the meaning and purpose of life?

Often	<input type="checkbox"/>
Sometimes	<input type="checkbox"/>
Rarely	<input type="checkbox"/>
Never	<input type="checkbox"/>
I am unsure	<input type="checkbox"/>

- (4) How often do you have the feeling that life is meaningless?

Often	<input type="checkbox"/>
Sometimes	<input type="checkbox"/>
Rarely	<input type="checkbox"/>
Never	<input type="checkbox"/>
I am unsure	<input type="checkbox"/>

- (5) How often do you think about death?

Often	<input type="checkbox"/>
Sometimes	<input type="checkbox"/>
Rarely	<input type="checkbox"/>
Never	<input type="checkbox"/>
I am unsure	<input type="checkbox"/>

SECTION 7

Please give the following information by ticking the appropriate boxes.

TICK ONE BOX FOR EVERY QUESTION

- (1) Apart from weddings, funerals, and baptisms, how often do you attend services at a church, mosque, synagogue or other place of worship? (DO NOT count church services attended because of school.)

More than once a week	<input type="checkbox"/>
Once a week	<input type="checkbox"/>
2 or 3 times a month	<input type="checkbox"/>
Once a month	<input type="checkbox"/>
Once every 2 or 3 months	<input type="checkbox"/>
Twice a year	<input type="checkbox"/>
Once a year	<input type="checkbox"/>
Less than once a year	<input type="checkbox"/>
Never	<input type="checkbox"/>

- (2) How often, if ever, do you pray? (Alone in your room for example - not in church or school related activities or services.)

Every day	<input type="checkbox"/>
3 or 4 times a week	<input type="checkbox"/>
Once a week	<input type="checkbox"/>
2 or 3 times a month	<input type="checkbox"/>
Once a month	<input type="checkbox"/>
Less than once a month	<input type="checkbox"/>
Once a year	<input type="checkbox"/>
Less than once a year	<input type="checkbox"/>
Never	<input type="checkbox"/>

- (3) How often, if ever, have you found praying by yourself satisfying or helpful?

All the time	<input type="checkbox"/>
Often	<input type="checkbox"/>
Several times	<input type="checkbox"/>
Once or twice	<input type="checkbox"/>
Never	<input type="checkbox"/>

- (4) How often do you read the Bible, or any other holy book?

Every day	<input type="checkbox"/>
3 or 4 times a week	<input type="checkbox"/>
Once a week	<input type="checkbox"/>
2 or 3 times a month	<input type="checkbox"/>
Once a month	<input type="checkbox"/>
Less than once a month	<input type="checkbox"/>
Never	<input type="checkbox"/>

- (5) Independently of whether you belong to a church, mosque, synagogue (or other place of worship) would you say you were:

Very religious	<input type="checkbox"/>
Religious	<input type="checkbox"/>
Sometimes religious, sometimes unsure about relig.	<input type="checkbox"/>
Unsure about religion	<input type="checkbox"/>
Indifferent to religion	<input type="checkbox"/>
Mildly critical of religion	<input type="checkbox"/>
Very antagonistic to religion	<input type="checkbox"/>

SECTION 8

Please tick the appropriate boxes to give the following information.

(1) Do religious beliefs affect what you eat?

TICK THE OPTIONS THAT APPLY

- | | |
|---|--------------------------|
| I do not eat some types of food at all for religious reasons | <input type="checkbox"/> |
| I do not eat some types of food on particular religious days or festivals | <input type="checkbox"/> |
| Sometimes I do not eat at all for religious reasons | <input type="checkbox"/> |
| Religion does not have any effect on what I eat | <input type="checkbox"/> |

(2) While praying or worshipping, do you do any of the following? (DO NOT count church or school related activities and services.)

PLEASE TICK AS MANY AS APPLY

- | | |
|---|--------------------------|
| Close your eyes | <input type="checkbox"/> |
| Lift your head | <input type="checkbox"/> |
| Bow your head | <input type="checkbox"/> |
| Raise your hands | <input type="checkbox"/> |
| Clasp your hands together | <input type="checkbox"/> |
| Cross yourself | <input type="checkbox"/> |
| Kneel down | <input type="checkbox"/> |
| Bend one knee | <input type="checkbox"/> |
| Lie down | <input type="checkbox"/> |
| Observe silence | <input type="checkbox"/> |
| Pray towards a certain place or direction | <input type="checkbox"/> |
| Bow at the waist | <input type="checkbox"/> |
| None of these apply to me | <input type="checkbox"/> |

- (3) Do you wear or have any religious objects or ornaments?
(such as a Cross, Star of David, or religious pictures,
plaques, statues, etc.)

YES ☐ NO ☐

- (4) Do you light candles or incense at home for religious
reasons or because of particular religious traditions?

YES ☐ NO ☐

- (5) How often do you receive communion, or the eucharist?
(or attend Passover service, food offering services, etc.)

More than once a week ☐
Once a week ☐
2 or 3 times a month ☐
Once a month ☐
Twice a year ☐
Once a year ☐
Less than once a year ☐
Never ☐

- (6) Are you a member of any of the churches listed below?

PLEASE TICK THE APPROPRIATE BOX

Adventist <input type="checkbox"/>	Pentecostal <input type="checkbox"/>
Anglican <input type="checkbox"/>	Presbyterian <input type="checkbox"/>
Baptist <input type="checkbox"/>	Roman Catholic <input type="checkbox"/>
Bretheren <input type="checkbox"/>	Salvation Army <input type="checkbox"/>
Lutheran <input type="checkbox"/>	A Christian denomination not listed (please write what it is.)
Methodist <input type="checkbox"/>
Mormon (Latter Day Saints) <input type="checkbox"/>	I do not belong to any church or religious organization. <input type="checkbox"/>
Another religion (please write what it is)	

SECTION 9

- (1) Listed below are 7 religious commandments. Using the headings below please show how much you think each of them applies to you.

PLEASE TICK ONE BOX FOR EACH STATEMENT

	It applies to me fully.	It applies sometimes.	Does not apply.	I do not know.
1 You shall worship the Lord your God and only Him you shall serve ...	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
2 Do not use the name of the Lord for evil purposes	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
3 Observe the Sabbath (Sunday) and keep it holy	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
4 Respect your father and mother	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
5 Do not steal	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
6 Do not accuse anyone falsely	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
7 Do not desire another person's goods or possessions	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

THANK YOU FOR YOUR HELP IN COMPLETING THIS
QUESTIONNAIRE. IF YOU HAVE ANY FURTHER COMMENTS
TO MAKE ON RELIGION IN THE MODERN WORLD PLEASE
WRITE THEM BELOW AND ON THE BACK OF THIS PAGE.

APPENDIX 5

PERMISSION FORM USED IN PILOT STUDIES

UNIVERSITY OF CANTERBURY PSYCHOLOGY DEPARTMENT

-LETTER HOME TO PARENTS-

Dear parent/s,

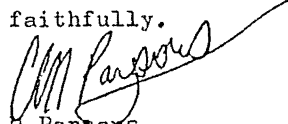
I am currently completing my thesis on the religious behaviour, religious beliefs, world view, and future orientation (hopes and fears etc) of young teenagers for my Masters degree. I am carrying out my research under the supervision of Dr B.G. Stacey of the Psychology Dept. of the University of Canterbury.

The Principle of _____, has kindly given permission to administer a trial questionnaire (and to discuss it) using some children at the school.

I would be grateful if you would indicate your permission for your child to assist me in the project. No child will be identified by name in my results and the school will also remain anonymous.

Thank you in anticipation for your assistance, which would be indicated by signing the form below,

Yours faithfully.


C.M. Parsons

To be returned to;

The High School Office
for Mr C. Parsons.

I give my permission / I do not give my permission
(cross out which does not apply) to take part in this
trial questionnaire for Mr. C. Parsons,

signed _____
(parent/guardian)



APPENDIX 6. PERMISSION FORM USED IN
SECOND PILOT STUDY

UNIVERSITY OF CANTERBURY PSYCHOLOGY DEPARTMENT

-- Letter Home to Parents --

Dear parent/s,

I am a former pupil of _____ and for the completion of my Masters degree in Psychology I am carrying out a research project on the religious attitudes, beliefs and behavior of teenagers.

This sort of research is very important as it helps us to understand and help teenagers in forming their views about the world around them. The teenage years can be a time of emotional and social stress for some and any investigation into this area has the potential to be of benefit to this age group in general.

I am carrying out my research under the supervision of Dr B.G. Stacey of the Psychology Department of the University of Canterbury.

The Principal of _____ High School, _____, has kindly given permission to administer a questionnaire using some of the classes at the school.

I would be grateful if you would indicate your permission for your child to assist me in the project. No child will be identified by name in my results and the school will also remain anonymous.

Thank you for your assistance, which would be indicated by signing the form below,

Yours faithfully,

C.M. Parsons

To be returned to;
The _____ High School Office
for Mr C. Parsons.

I give my permission / I do not give my permission
(cross out what does not apply) to take part in this
questionnaire.

signed _____
(parent/guardian)

APPENDIX 7

STATISTICS USED IN THE
PSYCHOLOGY OF RELIGION

<u>Statistical Method</u>	<u>Author(s)</u>
Cross Tabular Analysis	Filsinger (1976)
Factor analysis	King and Hunt (1969)
Log analysis	Filsinger (1976)
Path analysis	Francis (1977)
Standardized regression coefficients	Himmelfaub (1979)
Test-retest reliability	Hiltz (1975)

APPENDIX 8

CHI SQUARED FOR INTERGROUP COMPARISONS IN RELIGIOSITY SECTIONS

	Sex		Age		School-type		Religious Self Rating		Affiliation	
	x ²	df	x ²	df	x ²	df	x ²	df	x ²	df
<u>DOCTRINE</u>										
Question one					21.86249**	6	146.9749****	18	101.50193****	39
Question two	7.88131*	3			41.31714****	6	329.73451****	18	170.19608****	39
Question three					19.62396**	6	151.14933****	18	110.91597****	39
Question four					54.83113****	6	282.3672****	18	204.52177****	39
Question five	25.9576***	5			91.07284****	6	462.92886****	30	253.89678****	65
Question six	19.74066**	5			77.22402****	6	360.92115****	30	216.35192****	65
Question seven	23.96005**	5			65.70597****	6	411.63478****	30	209.80096****	65
Question eight	8.55*	5			67.314****	4			228.56406****	26
<u>MYSTICISM</u>										
Question one					59.01378****	14	294.1217****	48	231.72304****	91
Question two	12.53*	4	33.59384*	20	74.78135****	8	385.73514****	24	178.6205****	52
Question three	9.09*	4			31.63735***	8	58.18106***	24	75.51024*	52
Question four	16.94**	4								
Question five	23.57***	4			33.689****	8	46.09212**	24	69.66316*	52
<u>PERSONAL DEVOTION</u>										
Question one					188.66112****	16	282.82152****	48	441.51283****	104
Question two	20.54**	8			118.91287****	16	404.16859****	48	310.30825****	104

Appendix 8 (Continued)

Question three	15.49*	5	82.27532****	10	397.5274****	30	224.21474****	65
Question four			49.0711****	12	277.20494****	36	222.69907****	78
Question five	27.12249***	6	88.74035****	12			256.84924****	78
<u>SYMBOLIC RITUAL</u>								
Question one -								
Option one							39.37521***	13
Option two			116.91323****	2	62.02767****	6	136.29732****	13
Option three			9.80906**	2				
Option four			123.7762****	2	79.5904****	6	144.31773****	13
Question two -								
Option one	12.88747***	1	13.06171**	2	129.56011****	6	66.96154****	13
Option two	5.27437*	1					80.83288****	13
Option three			13.83268**	2	73.47284****	6	58.2354****	13
Option four					12.97257****	6	42.65825***	13
Option five	5.27437*	1	51.5395****	2	91.00064****	6	69.4036****	13
Option six	6.42681*	1	108.54807****	2	60.66524****	6	96.3898****	13
Option seven			20.0665****	2	42.41269****	6	37.12006***	13
Option eight			8.1419*	2	19.10029****	6	39.03755***	13
Option twelve					14.44896*	6		
Option thirteen	10.82279*	1	67.87074****	2	194.41557****	6	144.45132****	13

* $p \leq .05$ ** $p < .01$ *** $p < .001$ **** $p < .0001$

APPENDIX 8

CHI SQUARED FOR INTER-GROUP COMPARISONS FOR RELIGIOSITY SECTIONS

Symbolic Ritual	Sex		Age		School-type		Religious Self Rating		Affiliation	
	X ²	df	X ²	df	X ²	df	X ²	df	X ²	df
Question three	6.21608*	1			97.54758****	2	116.18322****	6	144.45132****	13
Question four							12.66931*	6		
Question five					284.50844****	14	226.97077****	42	441.81304****	13
<u>Morality</u>										
Question one					113.33821****	6	335.49684****	18	212.49541****	39
Question two	9.94426*	3			79.28102****	6	190.67424****	18	145.79002****	39
Question three					98.08742****	6	267.45024****	18	168.66205****	39
Question four					17.89342**	6	61.96687****	18		
Question five	60.63792****	3			74.8144****	6	64.25822****	18	63.98197**	39
Question six	35.41137****	3			53.91131****	6	73.80415****	18	84.62858****	39
Question seven	19.31836***	3			54.73479****	6	95.5703****	18	110.02921****	39

* p ≤ .05 ** p < .01 *** p < .001 **** p < .0001

APPENDIX 9

LAMBDA VALUES FOR ATTRIBUTION,
ORTHODOXY AND SYMBOLIC ITEMS

	<u>By sex</u>	<u>By school-type</u>	<u>By affiliation</u>
<u>Attribution</u>			
Do you believe in God?			.27027
<u>Belief</u>			
Do you believe in life after death?			.10462
Do you believe in Heaven?			.17568
Do you believe in Hell?			.17403
Do you believe in miracles?			.23529
<u>Symbolic Ritual</u>			
I do not eat some types of food on particular religious days or festivals		.19333	
Religion does not have any effect on what I eat		.20333	
While praying or worshipping do you do any of the following?			
Close your eyes	.13669	.10989	.24542
Cross yourself		.19333	
None of these apply to me	.11871		

Appendix 9 (Continued)

	<u>By Sex</u>	<u>By School-type</u>	<u>By Affiliation</u>
Do you wear or own any religious objects?		.38545	.47636

APPENDIX 10

CRAMER'S V STATISTICS FOR ATTRIBUTION

ORTHODOXY AND SYMBOLIC RITUAL ITEMS BY

SEX, SCHOOL-TYPE AND AFFILIATION

<u>Section</u>	<u>By Sex</u>	<u>By School-type</u>	<u>By Affiliation</u>
<u>Attribution</u>			
Do you believe in luck?	.12282		.17309
Do you believe in God?	.12405	.24364	.44895
<u>Orthodoxy</u>			
Do you believe in life after death?		.13885	.24428
Do you believe in Heaven?	.11173	.19088	.31632
Do you believe in Hell?		.13155	.25536
Do you believe in miracles?		.21989	.34675
<u>Symbolic Ritual</u>			
I do not eat some types of food at all for religious reasons			.26352
I do not eat some types of food on particular religious days or festivals			.49029
Sometimes I do not eat at all for religious reasons		.13153	.16438
Religion does not have any effect on what I eat.		.46723	.50451

Appendix 10 (Continued)

While praying or
worshipping do you
do any of the
following -

Close your eyes	.15429	.15178	.34365
Bow your head		.15619	.37757
Clasp your hands together		.30149	.32048
Cross yourself	.10646	.43754	.41231
Kneel down		.18812	.25587
Bend one knee		.11983	.26239
None of these apply to me	.13816	.34598	.50474
Do you wear or own any religious objects?	.1047	.41478	.53813
Do you light candles at home for religious reasons?			.18436

APPENDIX 11

ETA VALUES FOR BETWEEN CHURCH ATTENDANCE,
PRAYER, AND COMMUNION/EUCHARIST ATTENDANCE
AND SEX, SCHOOLING, AND AFFILIATION

<u>Item</u>	<u>By sex</u>	<u>By schooling</u>	<u>By affiliation</u>
Church attendance	.09608	.66908	.55461
Prayer	.11926	.56200	.44076
Communion/ eucharist	.03748	.75409	.68449

APPENDIX 12

T-TESTS FOR AGE DIFFERENCES FOR RELIGIOSITY ITEMS

	<u>13 and 15</u> <u>year olds</u>		<u>13 and 16</u> <u>year olds</u>		<u>14 and 15</u> <u>year olds</u>	
	<u>t value</u>	<u>df</u>	<u>t value</u>	<u>df</u>	<u>t value</u>	<u>df</u>
<u>Orthodoxy</u>						
Q.2. Heaven					2.46*	401
Q.4. Miracles					1.9*	401
Q.6. Biblical inspiration					2.02*	401
Q.7. Creation					2.71**	401
<u>Mysticism</u>						
Q.2. Closeness to God	2.15*	261				
<u>Symbolic Ritual</u>						
Q.2. Option 4 Raise hands					1.94*	401
Option 13 None of these apply to me	1.96*	261	1.94*	158		
<u>Morality</u>						
Q.1. You shall only have one God					2.88***	401

* $p \leq .05$

** $p < .05$

*** $p < .01$

APPENDIX 13

TAU C, GAMMA AND SOMER'S D VALUES FOR

COMPARISONS FOR RELIGIOUS SELF RATING

<u>Section</u>	<u>Tau C</u>	<u>Statistics</u> <u>Gamma</u>	<u>Somer's D</u>
<u>Doctrine</u>			
Q.5. Divinity of Christ	.57749	.76192	.61551
Q.6. Biblical inspiration	.49195	.65272	.52434
Q.7. Creation	.53159	.68025	.56659
<u>Mysticism</u>			
Q.1. Supernatural experiences	.39251	.50248	.4303
Q.2. Closeness to God	.46939	.59728	.48028
Q.3. Thinking on life's meaning	.16959	.2545	.17353
Q.4. Thinking on death	.07685	.11335	.07863
<u>Morality</u>			
Q.1. To have only one God	.46057	.56942	.4418
Q.2. To not blaspheme	.38819	.51795	.37237
Q.3. To keep the Sabbath	.39967	.54073	.38338
Q.4. To honour mother and father	.19760	.3425	.18954
Q.5. To not swear	.23156	.35057	.22212
Q.6. To not bear false witness	.20116	.30547	.19297
Q.7. To not covet another's possessions	.25368	.34214	.24334

APPENDIX 14

T-TESTS BETWEEN NON-AFFILIATED AND CHURCH AFFILIATED

<u>Section</u>	<u>Anglican and</u> <u>non-affiliated</u>		<u>Catholic and</u> <u>non-affiliated</u>		<u>Presbyterian and</u> <u>non-affiliated</u>	
Doctrine	t-value	df	t-value	df	t-value	df
Q.1. life after death	5.76****	221	7.24****	430		
Q.2. Heaven	7.68****	221	1.84****	430	3.6****	182
Q.3. Hell	5.62****	221	8.06****	430		
Q.4. Miracles	6.98****	221	2.26****	430	2.24*	182
Q.5. Divinity of Christ	8.08****	221	5.27****	430	3.46****	182
Q.6. Biblical inspiration	6.39****	221	3.13****	430	4.23****	182
Q.7. Creation	7.31****	221	2.55****	430	4.76****	182

* p<.05

** p<.01

*** p<.001

**** p<.0001

APPENDIX 15

T-TESTS BETWEEN DIFFERENT CHURCH

AFFILIATIONS FOR BELIEF

<u>Section</u>	<u>Anglican</u> <u>and</u> <u>Catholic</u>		<u>Anglican</u> <u>and</u> <u>Presbyterian</u>		<u>Catholic</u> <u>and</u> <u>Presbyterian</u>	
	<u>t value</u>	<u>df</u>	<u>t value</u>	<u>df</u>	<u>t value</u>	<u>df</u>
Q.1. Life after death			2.97**	83	2.82**	292
Q.2. Heaven						
Q.3. Hell					1.98*	292
Q.4. Miracles			2.09*	83	3.29**	292
Q.5. Divinity of Christ						
Q.6. Biblical inspiration	2.17*	331				
Q.7. Creation						

* $p < .05$

** $p < .01$

APPENDIX 16

RESPONSES TO BELIEF ITEMS

	<u>Female</u>	<u>Male</u>
	<u>N</u>	<u>N</u>
1. Do you believe in life after death?		
Yes	133	110
Not sure	81	61
No	67	91
Don't know	8	13
2. Do you believe in Heaven?		
Yes	177	143
Not sure	70	69
No	34	54
Don't know	8	9
3. Do you believe in Hell?		
Yes	101	104
Not sure	96	94
No	84	68
Don't know	8	9
4. Do you believe Jesus walked on water?		
Yes	114	113
Not sure	93	78
No	56	65
Don't know	26	19
5. Jesus is the Son of God.		
Strongly agree	69	92
Agree	118	65
Unsure	51	49
Don't know	33	35
Disagree	9	13
Disagree strongly	8	21

Appendix 16 (Continued)

6. The Bible is inspired
by God

Strongly agree	40	59
Agree	98	82
Unsure	84	46
Don't know	48	57
Disagree	10	14
Disagree strongly	9	17

7. God created the world

Strongly agree	77	80
Agree	90	35
Unsure	56	39
Don't know	34	34
Disagree	18	33
Disagree strongly	14	34

APPENDIX 17

RESPONSES TO MYSTICISM ITEMS

	<u>Female</u>	<u>Male</u>
	<u>N</u>	<u>N</u>
1. How often have you been aware of the presence of God?		
Pretty regularly	14	13
Often	21	26
Several times	28	35
Now and again	40	26
Only a few times	25	15
Once or twice	35	37
Never	55	74
Unsure	71	52
2. How close do you feel to God?		
Very close	29	10
Close	109	86
Not very close	47	56
Not close at all	45	68
Unsure	59	38
3. How often do you think about the meaning of life?		
Often	109	97
Sometimes	124	105
Rarely	40	55
Never	7	16
Unsure	9	5
4. How often do you think life is meaningless?		
Often	48	30
Sometimes	99	78
Rarely	88	78
Never	45	76
Unsure	9	16

Appendix 17 (Continued)

5. How often do you think
about death?

Often	76	61
Sometimes	142	97
Rarely	56	96
Never	12	22
Unsure	3	2

APPENDIX 18
SUBJECTS' RESPONSES TO
PERSONAL DEVOTION ITEMS

	<u>Female</u> <u>N</u>	<u>Male</u> <u>N</u>
1. How often do you attend Church?		
Once a week +	10	8
Once a week	86	66
Two to three per month	29	20
Once a month	11	11
Once every two to three months	20	15
Twice a year	20	31
Once a year	23	15
Less than once a year	21	27
Never	69	82
2. How often do you pray?		
Every day	56	38
Three to four times a week	34	37
Once a week	27	23
Two to three times per month	31	17
Once a month	17	15
Less than once a month	30	20
Once a year	18	12
Less than once a year	23	23
Never	53	90
3. How often have you found praying helpful?		
All the time	34	26
Often	59	57
Several times	42	28
Once or twice	79	56
Never	74	107
4. How often do you read the Bible?		
Every day	7	3
Three to four times a week	15	14
Once a week	16	25
Two to three times a month	21	12
Once a month	13	21
Less than once a month	86	66
Never	131	134

Appendix 18 (Continued)

Female

Male

5. Are you -

Very religious	5	2
Religious	70	71
Sometimes religious	96	64
Unsure about religion	78	57
Indifferent	9	16
Mildly critical	18	32
Very antagonistic	12	32

APPENDIX 19

FREQUENCIES OF RESPONSES TO
SYMBOLIC RITUAL ITEMS

	<u>Female</u> <u>N</u>	<u>Male</u> <u>N</u>
1. Do religious beliefs affect what you eat?		
I do not eat some foods at all for religious reasons	5	7
I do not eat some foods on particular religious days or festivals	64	58
Sometimes I do not eat at all for religious reasons	3	7
Religion does not affect what I eat	214	208
2. While praying or worshipping do you do any of the following?		
close your eyes	161	112
lift your head	13	12
bow your head	105	81
raise your hands	19	16
clasp your hands together	105	76
cross yourself	68	42
kneel down	58	44
bend one knee	8	11
lie down	39	34
observe silence	109	81
pray toward a certain place or direction	29	25
bow at waist	4	6
none of these apply to me	74	107
3. Do you own religious objects or ornaments?		
Yes	155	120
No	134	159

Appendix 19 (Continued)

4. Do you light candles or
incense at home for
religious reasons?

Yes	11	16
No	278	263

5. How often do you receive
communion/eucharist?

More than once a week	3	2
Once a week	81	59
Two to three times a month	27	27
Once a month	16	25
Twice a year	23	26
Once a year	10	15
Less than once a year	18	18
Never	111	106

APPENDIX 20

FREQUENCIES OF RESPONSES TO THE MORALITY QUESTIONS

	It applies to me fully		It applies sometimes		Does not apply		I do not know	
	F. N	M. N	F. N	M. N	F. N	M. N	F. N	M. N
1. You shall worship the Lord your God and only Him shall you serve.	61	68	79	78	86	90	63	42
2. Do not use the name of the Lord for evil purposes	50	57	142	104	60	83	37	34
3. Observe the Sabbath (Sunday) and keep it holy	42	33	70	74	129	123	48	48
4. Respect your father and mother	176	143	99	111	10	16	4	8
5. Do not steal	197	99	55	106	31	57	6	16
6. Do not accuse anyone falsely	111	50	141	159	19	45	18	24
7. Do not desire another person's goods or possessions	90	45	118	123	53	73	28	37

APPENDIX 21

CATHOLIC SCHOOL-STATE SCHOOL DIFFERENCES IN BELIEF

	<u>State</u>		<u>Catholic</u>	
	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>
1.Do you believe in after death?				
Yes	52	36	79	75
Not sure	43	47	38	45
No	39	37	29	25
Don't know	5	8	4	5
2.Do you believe in Heaven?				
Yes	72	46	105	100
Not sure	41	36	29	33
No	19	39	16	15
Don't know	7	7	0	2
3.Do you believe in Hell?				
Yes	43	37	57	68
Not sure	48	41	47	54
No	42	44	44	25
Don't know	6	6	2	3
4.Do you believe that Jesus walked on water?				
Yes	38	29	74	86
Not sure	53	39	40	41
No	33	47	25	17
Don't know	15	13	1	6

APPENDIX 22

CATHOLIC-STATE SCHOOL DIFFERENCES

FOR MYSTICISM ITEMS

	<u>Catholic</u>		<u>State</u>	
	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>
1. How often have you been aware of the presence of God, or of something else spiritual?				
Pretty regularly	8	9	6	4
Often	14	18	7	8
Several times	17	30	11	5
Now and again	27	22	13	4
Few times	10	9	15	6
Once or twice	22	17	13	20
Never	26	21	29	53
Unsure	26	24	45	28
2. How close do you feel to God or something else spiritual?				
Very close	17	21	12	9
Reasonably close	78	62	31	24
Not very close	19	35	28	21
Not close at all	18	19	22	49
Unsure	18	13	41	25
3. How often do you think about the meaning and purpose of life?				
Often	68	64	41	31
Sometimes	61	58	63	47
Rarely	18	22	22	33
Never	2	6	5	10
Unsure	1	0	8	5
4. How often do you have the feeling life is meaningless?				
Often	18	19	30	11
Sometimes	54	42	45	36
Rarely	49	46	39	32
Never	25	37	20	39
Unsure	4	6	5	10

APPENDIX 23

CATHOLIC SCHOOL-STATE SCHOOL DIFFERENCES

FOR PERSONAL DEVOTION ITEMS

	<u>Catholic</u>		<u>State</u>	
	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>
1. How often do you attend Church services?				
More than once a week	4	3	6	4
Once a week	74	59	12	9
Two to three times a month	20	16	10	5
Once a month	8	8	3	3
Once every two to three months	12	11	8	4
Twice a year	11	20	9	11
Once a year	5	10	18	5
Less than once a year	9	7	11	21
Never	7	16	62	66
2. How often do you pray?				
Every day	38	34	18	5
Three to four times a week	29	31	5	7
Once a week	14	13	13	10
Two or three times a month	19	12	12	5
Once a month	7	11	9	4
Less than once a a month	17	12	14	8
Once a year	8	7	10	5
Less than once a year	8	10	14	14
Never	10	20	49	70
3. How often have you found prayer satisfying or helpful?				
All the time	21	23	12	5
Often	38	45	21	12
Several times	28	20	15	8
Once or twice	43	30	36	27
Never	20	32	55	75

Appendix 23 (Continued)

4. How often do you
read the Bible or
any other Holy
Book?

Every day	5	3	0	2
Three or four times a week	7	11	8	2
Once a week	10	16	5	10
Two or three times a month	14	12	7	1
Once a month	11	16	2	6
Less than once a month	47	42	38	24
Never	56	50	77	85

5. Would you say you
were -

Very religious	3	1	2	1
Religious	50	59	19	15
Sometimes religious	40	20	58	44
Unsure about religion	24	21	54	36
Indifferent to religion	3	3	6	13
Critical of religion	8	15	10	18
Antagonistic to religion	4	7	8	25

APPENDIX 24

CATHOLIC SCHOOL-STATE SCHOOL
DIFFERENCES IN SYMBOLIC RITUAL

	<u>Catholic school</u>		<u>State school</u>	
	<u>F</u>	<u>M</u>	<u>F</u>	<u>M</u>
	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>
Q.1. Does religion affect what you eat?				
I do not eat some foods for religious reasons	4	3	1	4
I do not eat some foods on particular religious days or festivals	63	54	9	6
Sometimes I do not eat at all for religious reasons	9	6	1	1
Religion does not have any effect on what I eat	78	88	136	120
Q.2. While praying or worshipping do you do any of the following?				
Close your eyes	87	78	74	34
Bow your head	8	8	5	4
Clasp your hands together	64	54	41	27
Raise your hands	7	9	12	7
Clasp your hands together	75	59	30	17
Cross yourself	63	42	5	0
Kneel down	40	34	18	10
Bend one knee	7	9	1	2
Observe silence	74	62	35	19
Pray towards a certain direction	20	21	7	5
Bow at the waist	6	3	3	1
These do not apply to me	19	32	54	76
Q.3. Do you own or wear religious objects or ornaments?				
Yes	110	93	52	20
No	40	57	87	119

APPENDIX 24 (CONTINUED)

Q.5.How often do
attend communion
or the eucharist?

More than once a week	3	1	1	
Once a week	76	56	5	3
2-3 times a month	20	22	7	5
Twice a year	12	19	4	6
Once a year	3	9	5	8
Less than once a year	4	9	117	107
Never				

APPENDIX 25

CATHOLIC SCHOOL - STATE SCHOOL DIFFERENCES IN RESPONSES
TO MORALITY ITEMS

	<u>CATHOLIC</u>		<u>STATE</u>	
	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>
1 You shall have only one God				
applies fully	47	58	14	10
applies sometimes	51	56	28	22
does not apply	31	22	55	68
do not know	21	14	42	28
2 Do not blaspheme				
applies fully	32	41	18	6
applies sometimes	86	75	54	20
does not apply	73	26	37	57
do not know	7	8	30	26
3 Keep the Sabbath				
applies to me fully	33	26	9	7
applies sometimes	54	59	16	15
does not apply	51	47	18	76
do not know	12	18	36	30
4 Honor father and mother				
applies fully	99	84	77	59
applies sometimes	48	59	51	52
does not apply	2	6	8	16
do not know	1	1	3	7
5 Do not steal				
applies fully	115	65	87	54
applies sometimes	25	65	30	41
does not apply	8	18	23	39
do not know	2	2	4	14

APPENDIX 26

F-RATIO RESULTS FOR TWO-WAY ANALYSES OF VARIANCE CALCULATED FOR EFFECTS OF THE INDEPENDENT VARIABLES ON CHURCH GOING, PRAYER, BIBLE READING, AND ATTENDING COMMUNION.

	<u>Church attendance</u>	<u>Prayer</u>	<u>Bible reading</u>	<u>Communion</u>
	<u>F-ratio</u>	<u>F-ratio</u>	<u>F-ratio</u>	<u>F-ratio</u>
Sex		13.29****		
Schooling		64.13		
Sex				
Self rated religiosity	59.67	105.27	93.85	49.93
Sex	4.15*	6.16*		
Church affiliation	33.34 (a two way interaction for these=2.55**)	19.66	13.86	57.73.
Age				
Schooling	109.81			
Age				
Self rated religiosity	60.34			49.66
Age				
Church affiliation	35.52			57.56

APPENDIX 27

CHI SQUARED FOR EACH INDEPENDENT VARIABLE AND EACH QUESTION

	Sex		Age		School-type		Religious Self Rating		Affiliation	
	x ²	df	x ²	df	x ²	df	x ²	df	x ²	df
<u>OPTIMISM-PESSIMISM</u>										
Question one	25.2756****	2			13.85917**	4				
Question two							25.23101*	12		
Question three	14.4643***				13.33432**	4				
Question four	6.7989*		18.21874*	10	11.08582*	4	38.36767*	26	38.36767*	26
Question five	20.7959****				20.13646***	4				
Question six					14.9434**	4				
Question seven					35.56025****	4	26.82884**	12		
Question eight					12.66905*	4				
Question nine	5.7876*				24.22951***	4				
Question ten			24.42139**	10	9.51134*	4	43.41646*		43.41646*	26
Question eleven	7.1476*				25.63113****	4			42.21803*	26
Question twelve	11.1313**		24.0776**	10	10.96764*	4				
Question fourteen	16.7169***		21.94695*	10	42.52599****	4	24.31654*	12	39.94175*	26
<u>CONSERVATISM</u>										
Question one	6.6975*	2			13.82033**	4				
Question two					27.29716****	4	147.57363****	12	81.24593****	26
Question three	24.6108****				36.85554****	4	22.5975*	12		
Question four	5.9351*				18.65532****	4				

Appendix 27 (Continued)

Question five	6.2835*		36.47555*****	4		12	135.07382*****	26
Question seven					232.57*****	12		
Question eight	7.778*						48.14513**	26
Question ten		20.94685* 10	9.61391*	4				
Question twelve	16.1608***		18.30001**	4	21.16584*	12	40.72153*	26
Question thirteen	43.37815*****		29.31462*****	4				
Question fourteen			15.93849**	4				
<u>POLITICAL SELF RATING SCALE</u>			34.81897***					
<u>NUCLEAR WAR</u>								
Question one	24.559*****	3	17.90368**	6	28.2858*	18		
Question two	13.095*	3	29.11547***	6	49.2093***	18	76.58897***	39
Question three	7.7395	3	33.86402*****	6	42.9967***	18	64.62671**	39
Question four	33.6518*****	3	29.91115*****	6				
Question five	21.0599***	3	23.21546***	6				
<u>ATTRIBUTION</u>								
Question one			19.30626*	8	59.13192***	24	114.28646*****	52
Question two					85.80325*****	24	84.03303**	52
Question three	8.5535*	2	9.92711*	4				
Question five	8.7252*	2	67.31409*****	4	363.48088*****	12	228.56406*****	26
Question six	15.0258**	3	98.68095*****	10	431.55366*****	30	288.9114*****	65
Question seven		145.56537***** 30					182.26603*****	78
Question eight	13.26**	3	29.2148***	6				
Question nine					62.64626*****	24		

APPENDIX 28

LAMBDA VALUES FOR SEX DIFFERENCES IN ANSWERS
TO THE OPTIMISM-PESSIMISM AND NUCLEAR WAR SECTIONS

<u>Optimism-Pessimism</u>	<u>Lambda</u>
Q.1.NZ standard of living	.1421
Q.2.Violent crime	.1799
Q.7.Safety of nuclear power plants	.10435
Q.14.Democracy in NZ	.15468
<u>Nuclear war and nuclear weapons</u>	
Q.1.The desire to survive a nuclear war	.16547
Q.2.Nuclear war and Biblical prophecy	.11871
Q.4.Morality of working in the nuclear weapons industry	.2367
Q.5.Nuclear war and the death of the human race	.18924

APPENDIX 29

T-TESTS FOR AGE DIFFERENCES IN NON-RELIGIOUS ITEMS

Section	13 with 14 year olds		13 and 15 year olds		13 and 16 year olds		14 and 15 year olds		14 and 16 year olds		15 and 16 year olds	
	t value	df	t value	df	t value	df	t value	df	t value	df	t value	df
<u>OPTIMISM</u>												
Q.1. N.Z. standard of living	2.16*	300			2.07*	158					3.***	259
Q.3. Detente									3.19***	298	2.86***	259
Q.4. Nuclear war							2.85**	401			2.77**	259
Q.9. Social tensions					3.35***	158			3.07***	298		
Q.10. The poor					1.97*	158			2.25*	298	2.44*	259
Q.11. The unemployed			3.35***	261	2.26*	158	2.34*	401				
Q.13. Disease			3.09***	261			2.01*	401			2.27*	259
<u>CONSERVATISM</u>												
Q.1. Bible study												
Q.2. Communism									1.93*	298		
Q.5. Churches					2.25*	15			2.14*	298		
Q.6. Unemployed benefit									2.72**	298	2.03*	259
Q.7. United States							2.29*	401				
Q.8. Unions			1.97*	261								
Q.9. Harder measures against violent offenders									1.99*	401		
Q.10. Socialism									2.34*	401		
Q.14. Corporal punishment	2.16*	300	2.7**	261	2.6*	158						

Appendix 29 (Continued)

NUCLEAR WAR

Q.4. Career making nuclear weapons	2.23*	261	2.33*	158	1.94*	401	2.05	298
Q.5. Death of human race					2.65**	401		

ATTRIBUTION

Q.1			2.29*	158				
Q.3.			2.05*	158				
Q.4.		2.05*	261	2.79*	158		1.94*	298
Q.6.		2.15*	261					
Q.7.		2.09*	261	1.95*	158			
Q.8.	2.44*	300	2.28*	261	2.16*	158		
Q.9.					1.95*	401		2.3* 259

APPENDIX 29

T-TESTS FOR AGE DIFFERENCES IN NON-RELIGIOUS ITEMS

Section	13 with 14 year olds		13 and 15 year olds		13 and 16 year olds		14 and 15 year olds		14 and 16 year olds		15 and 16 year olds	
	t value	df	t value	df	t value	df	t value	df	t value	df	t value	df
<u>OPTIMISM</u>												
Q.1. N.Z. standard of living	2.16*	300			2.07*	158					3.***	259
Q.3. Detente									3.19***	298	2.86***	259
Q.4. Nuclear war							2.85**	401			2.77**	259
Q.9. Social tensions					3.35***	158			3.07***	298		
Q.10. The poor					1.97*	158			2.25*	298	2.44*	259
Q.11. The unemployed			3.35***	261	2.26*	158	2.34*	401				
Q.13. Disease			3.09***	261			2.01*	401			2.27*	259
<u>CONSERVATISM</u>												
Q.1. Bible study												
Q.2. Communism									1.93*	298		
Q.5. Churches					2.25*	15			2.14*	298		
Q.6. Unemployed benefit									2.72**	298	2.03*	259
Q.7. United States							2.29*	401				
Q.8. Unions			1.97*	261								
Q.9. Harder measures against violent offenders							1.99*	401				
Q.10. Socialism							2.34*	401				
Q.14. Corporal punishment	2.16*	300	2.7**	261	2.6*	158						

APPENDIX 30

TAU C, GAMMA, AND SOMER'S D RESULTS FOR RELIGIOUS
RATING AND ATTRIBUTION ITEMS

	<u>Tau C</u>	<u>GAMMA</u>	<u>SOMER's D</u>
Q.1Parents	.15562	.24998	.15923
Q.4Luck		.06933	.04609
Q.6God	.57329	.75897	.61104
Q.7Siblings	.10374	.15784	.11373
Q.9School	.13847	.20252	.14168

APPENDIX 31

SUBJECTS' RESPONSES TO THE OPTIMISM-PESSIMISM ITEMS

	Yes		Not sure		No	
	Female N	Male N	Female N	Male N	Female N	Male N
1. Do you believe the standard of living of New Zealanders will get better by 1990?	84	136	133	82	72	60
2. Do you believe that violent crime will increase in New Zealand by 1990?	226	210	47	50	16	10
3. Do you believe the governments of America and the Soviet Union will be friendlier in the future?	53	85	131	123	105	70
4. Do you believe that nuclear war will occur in your lifetime?	72	66	150	121	67	91
5. Do you believe that the New Zealand economy will get better by 1990?	81	127	145	95	63	56
6. Do you believe pollution will kill much of the earth's plant and animal life?	147	165	70	53	72	60
7. Do you believe nuclear power plants will be safer in the future?	39	119	111	76	139	83

APPENDIX 31 (CONTINUED)

8. Do you believe life will be more healthy in the future?	66	74	99	112	124	92
9. Do you believe there will be a rise in tensions between different groups in New Zealand society by 1990?	142	124	108	117	39	37
10. Do you believe the standard of living of the world's poor people will get better by 1990?	109	94	77	76	103	108
11. Do you believe that there will be mass unemployment because of jobs being taken over by machines?	194	161	54	55	41	62
12. Do you believe that all the countries in the world will be friendlier to each other in the future?	38	65	136	126	115	87
13. Do you believe there will be an increase in disease?	111	91	91	79	87	108
14. Do you believe New Zealand will be a democracy in the future?	58	88	204	150	27	40

APPENDIX 32

SUBJECTS RESPONSES TO CONSERVATISM ITEMS

	Yes		Not Sure		No	
	Female N	Male N	Female N	Male N	Female N	Male N
1. Strikes for higher wages and salaries	117	142	85	63	87	73
2. Bible study classes in state Secondary schools	59	46	73	84	157	148
3. Communism	9	23	127	71	153	184
4. The Government of the Soviet Union	14	23	140	110	135	145
5. The Churches	141	137	102	77	46	64
6. The unemployment benefit	153	160	90	72	46	46
7. The Government of the United States	42	61	152	130	95	87
8. Trade Unions	83	108	64	127	42	43
9. Harder measures against violent criminals	245	239	23	25	21	14
10. Socialism	76	80	182	167	31	31
11. CMT (compulsory military training for young adults)	77	94	58	46	154	138
12. Capitalism	29	47	220	168	40	63

APPENDIX 32 (CONTINUED)

13. Decreasing military defence spending in New Zealand	89	72	134	72	66	134
14. Corporal punishment	58	76	36	37	195	165

APPENDIX 33

POLITICAL SELF RATINGS

	<u>Female</u>	<u>Male</u>
1. Extremely Left Wing	2	3
2.	10	9
3.	38	36
4. Middle	200	183
5.	30	29
6.	5	11
7. Extremely Right Wing	4 0	7

APPENDIX 34

SUBJECTS RESPONSES TO THE NUCLEAR WAR AND WEAPONS ITEMS

	Female N	Male N
1. Would you want to be a survivor of a nuclear war		
Yes	48	94
Not sure	68	56
No	154	120
Don't know	19	8
2. Do you believe that nuclear is prophesied in the Bible as insisted by some prominent Churchmen?		
Yes	20	22
Not sure	86	77
No	66	96
Don't know	117	89
3. Do you believe nuclear weapons could destroy everything Christians have built over the centuries?		
Yes	150	164
Not sure	36	37
No	73	64
Don't know	30	13
4. Do you believe it is right for a person to make a career in a job manufacturing nuclear weapons?		
Yes	29	78
Not sure	56	53
No	186	140
Don't know	18	7
5. Do you believe nuclear warfare means the death of the human race?		
Yes	179	148
Not sure	58	43
No	32	72
Don't know	20	15

APPENDIX

FREQUENCIES OF RESPONSES TO ATTRIBUTION ITEMS

	Almost entirely		Strongly		Moderately		Little		None	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
	N	N	N	N	N	N	N	N	N	N
1. How much do you think your life is influenced by your parents?	8	16	111	119	140	112	25	24	5	7
2. How much do you think your life is influenced by the government?	4	7	25	29	82	78	129	119	49	45
3. (b) How much do you think your life is influenced by luck?	3	8	11	17	87	71	144	127	44	55
4. (b) How much do you think your life is influenced by God?	17	17	48	60	92	62	84	65	47	73
5. How much do you think your life is influenced by your brother(s), and/or sister(s).	2	6	57	43	117	99	82	91	28	36
6. How much do you think your life is influenced by your own choices and abilities?	58	75	147	155	73	38	11	10	0	0
7. How much do you think your life is influenced by your school?	17	22	91	84	125	113	49	47	7	12

30
APPENDIX

FREQUENCIES OF RESPONSES TO ATTRIBUTION ITEMS

	<u>Female</u> <u>N</u>	<u>Male</u> <u>N</u>
1. Do you believe in luck?		
Yes	190	166
No	57	45
Not sure	42	67
2. Do you believe in God?		
Yes	195	161
No	59	59
Not sure	35	58